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ASTOUNDING

JUNE '42

Science-fiction 25c



**BRIDLE
and SADDLE**

by ISAAC ASIMOV

JUNE • 1942

A STREET AND SMITH PUBLICATION

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ASTOUNDING

SCIENCE-FICTION

25c

Pityrosporum ovale, the strange "bottle bacillus" regarded by many leading authorities as a causative agent of infectious dandruff.

TELL-TALE FLAKES?

ITCHY SCALP?

UGLY SCALES?

LOOK OUT FOR INFECTIOUS DANDRUFF!

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MEN: Douse full strength Listerine Antiseptic on the scalp morning and night.
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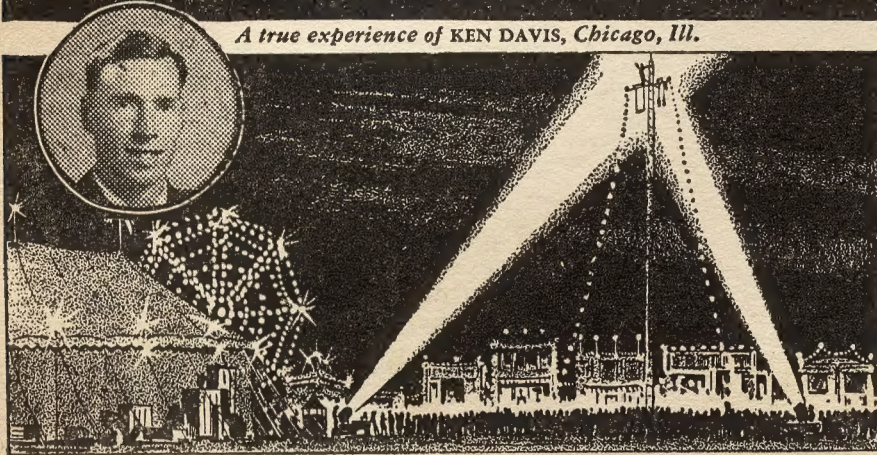
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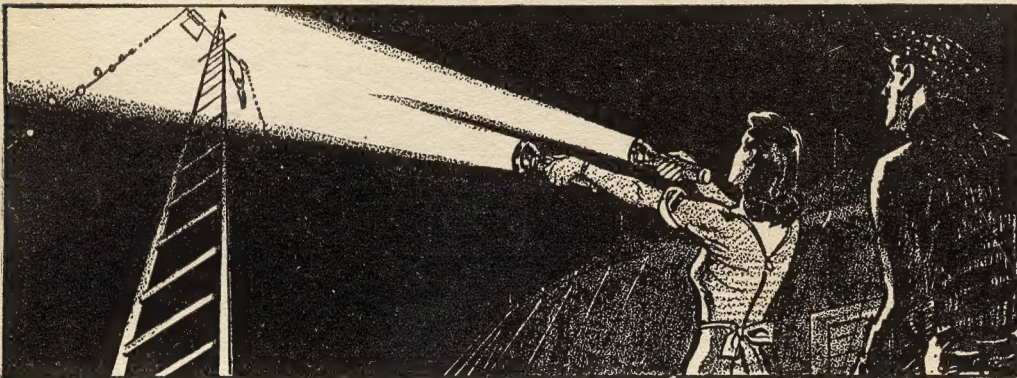
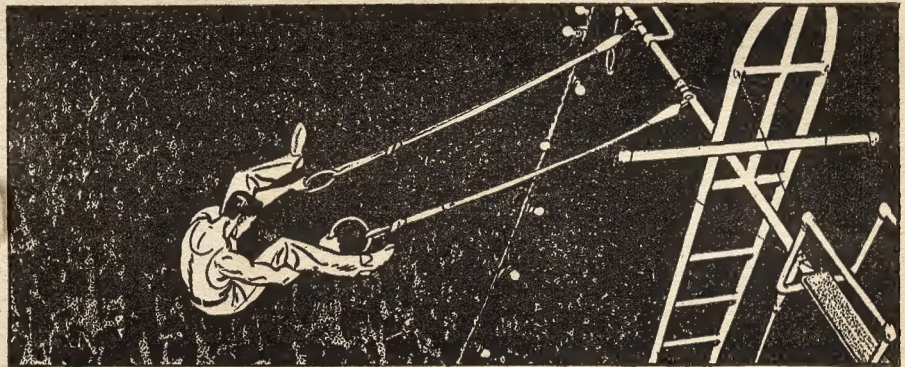
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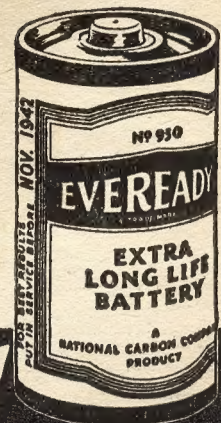


"FOR AN AWFUL INSTANT I thought I was a 'goner.' Suddenly—in the nick of time—the bright beams of two 'Eveready' flashlights in my wife's steady hands flooded the rings with light. I finished my act. Thanks to my wife's coolness and foresight, and those dependable 'Eveready' fresh DATED batteries, a possible tragedy was averted.

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Ken Davis

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POST-WAR DUTY

There's a flavor to that recent order of the rationing and priorities authorities that limits the bicycle manufacturers to the use of steel, silver and gold. Can't help wondering what Herr Goebbels will tell his people now, how he'll phrase that order. Silver and gold to replace nickel and bronze and babbit metal!

But the set-up indicates something more than an unusual and somewhat amusing contretemps; this war is going to have a most peculiar effect—a back-hand resultant that, at first glance, seems insane. We are going to be immensely richer after the war is over than we were before. We're throwing away billions of dollars in pure destruction—shells, explosives, war planes, tanks, bombers, torpedoes and torpedo boats, a thousand things that can never be used to help the standard of living. Cities will be devastated, the human potentials of millions of men canceled.

And the world will be richer for all of that!

In the first place, dollars aren't money or wealth; they're related to wealth in exactly the way degrees Centigrade or degrees Fahrenheit are related to heat. They're a purely arbitrary, unreal measurement of wealth, a counting method. Wealth consists of two types of things, divided into several classes. There are material goods, subdivided into consumption goods and capital production means, and there is wealth in the form of knowledge, an immaterial production machinery.

War is a terrific consumer; the world's stock of wealth in the form of consumption goods is being destroyed at so deadly a rate that, to maintain the supply, every nation of Earth is straining every means to increase production capacity, to learn new methods of using what we have more efficiently, to build more swiftly the means of still producing more consumption goods. With millions of men drained from the economy of production into the vastly consuming armies, means of making each remaining man more productive *must* be worked out.

War makes impossibilities imperative necessities—and *makes* hard-shelled, unimaginative people realize that the thing wasn't impossible at all, that just because no one ever had done it does not and never did prove that it couldn't be done. War does—this war will—make science-fiction come true.

Item: they had to find some way to air condition army tanks; men couldn't fight efficiently in hot climates in the baking interior of a metal box. You can bet we'll have air-conditioned cars when the war's over.

Item: Ford is building a plant that will turn out one four-engined bomber every sixty minutes. Any bets he will not turn out family light planes a lot faster when the war ends?

This nation in particular—we're the arsenal of democracy—and the world in general is inevitably going to wind up this war with such a stupendous increase in real wealth—the production machinery and methods—that we'll have to be richer. War consumes at a furious, terrible pace, a pace dozens of times greater than peacetime consumption. It lashes production facilities onward and upward.

And when the war ends—the production machinery is there. We'll have to consume, each one of us, at least twice as much, probably three times as much, as we ever consumed before. Somehow we'll be forced to consume for our own, peacetime, civilian purposes, all the terrific amount of consumption goods those vast new factories will be turning out.

Dollars aren't wealth, but a counting method. If the consumption is to be tripled, the dollars available to the people must either be tripled in number, or in value, or a compromise somewhere between attained. If the national income was \$90,000,000,000 before the war, it will either have to be \$270,000,000,000 after the war, or cars will have to sell for \$250 to \$300 for the usual light car—or something of both must take place.

The usual reaction is the increase in counters, rather than a change in the "value" of the counters. That is, light cars will continue to cost \$750 to \$900, but an average man who used to make \$35 a week will make about \$120 a week.

A large portion of the post-war readjustment panics have been due to the fact that people don't understand that war has, impossibly, made them richer. The perversity is, as usual, with humankind. They could have been richer—much richer without the war if they'd only been willing to try. Being the general lazy fools we are—Darwin never said how far we were descended from monkeys—we don't make that change until someone beats us over the head with a club. After the war, people want desperately, perversely, to settle back to the old, low standard of living. They think they can now go back where they were before and lie down in the same old rut. Their hopes are to get back to the good old \$35 a week—or to keep on paying their employees the old \$35 a week.

But the whole system, enormously expanded and strengthened, isn't producing on a scale that \$35 a week salaries will lap up; it demands that people use \$120 worth of goods every week.

Continued on page 113

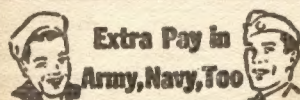
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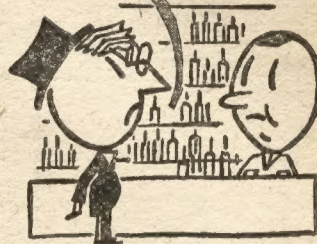
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How I Solved My Liquor Dither by don herold

I used to quiver with confusion every time I started out to buy some sort of indoor drinking ammunition. I was baffled by brands—hundreds of them. Which to buy? I'm not a liquor expert, are you? I mean, drinking is a pleasure with me—not a life work.

Then an old-timer, a friend of mine who has been around a lot of liquors, said, "Settle on Old Mr. Boston. In any department you can be sure he'll never let you down."

I now know that all I need to know to buy any or all kinds of fine liquors is just one simple name—Old Mr. Boston.

It's a handy handle by which we liquor buyers can grasp this whole liquor-brand proposition.

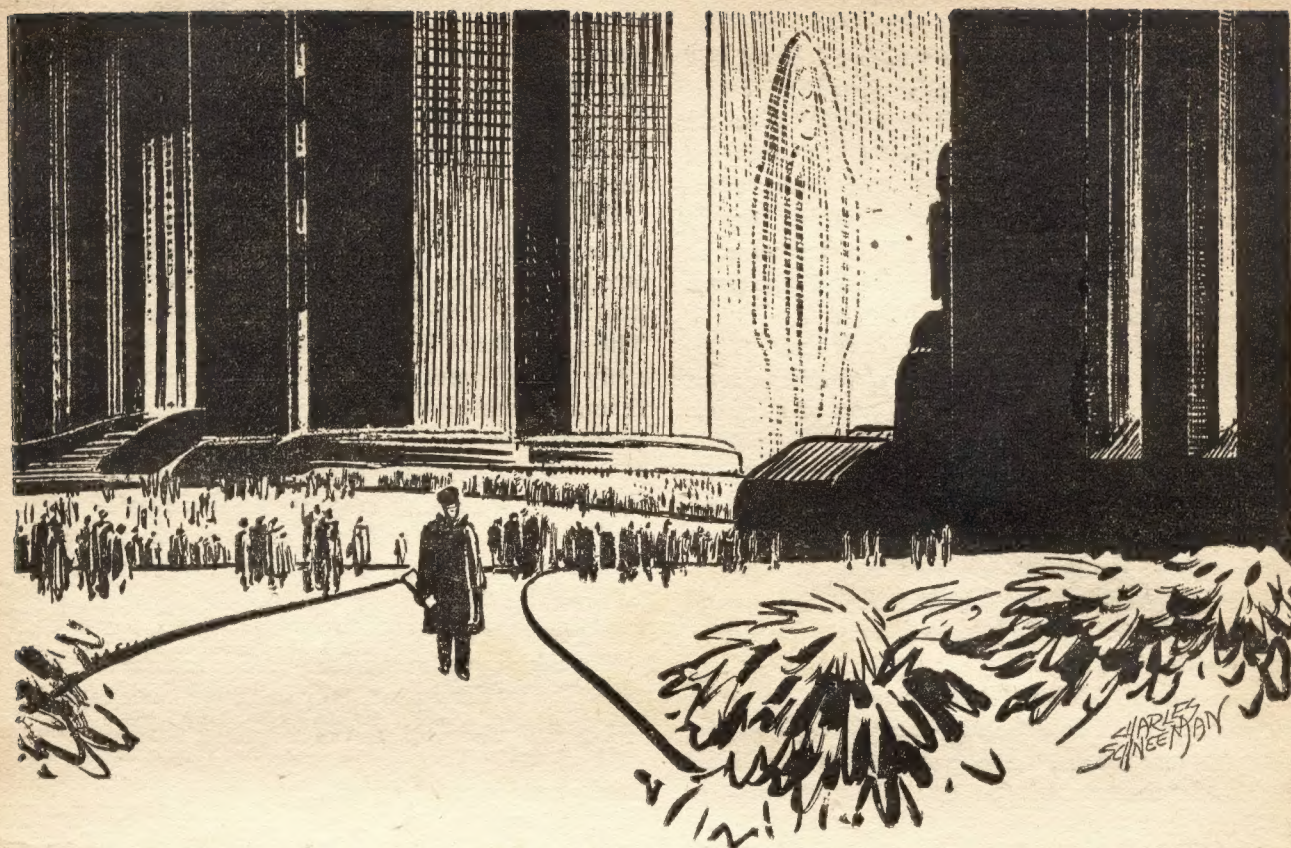
Just imagine! More than 30 different liquors under ONE name—all good—all pleasant to the palate and purse. There are whiskeys, gins, brandies, and a bunch of tasty cordials and liqueurs. All Old Mr. Boston. All reasonable in price.

You've solved the liquor-brand problem for me,
Old Mr. Boston



Every drink in the Old Mr. Boston line smacks of that skilled New England craftsmanship which for three centuries has been the honored tradition of the great old city of Boston.

Why play hide and seek with liquor brands any longer? Join me today, and settle on good Old Mr. Boston.



BRIDLE AND SADDLE

By Isaac Asimov

Illustrated by Schneeman

● Given: a Foundation with much knowledge, much skill—and no military resources. And a whole series of plotting, ambitious planets to attack it. How can the few, the weak—but the wise!—men of the Foundation rule, as they must if they would not die?

A deputation!

That Salvor Hardin had seen it coming made it none the more pleasant. On the contrary, he found anticipation distinctly annoying.

Yohan Lee advocated extreme measures. "I don't see, Hardin," he said, "that we need waste any time. They can't do anything till next election—legally, anyway—and that gives us a year. Give them the brush-off."

Hardin pursed his lips. "Lee, you'll never learn. In the forty years I've known you, you've never once learned the gentle art of sneaking up from behind."

"It's not my way of fighting," grumbled Lee.

"Yes, I know that. I suppose that's why you're the one man I trust." He paused and reached for a cigar. "We've come a long way, Lee, since we engineered our coup against the Encyclopedists way back. I'm getting old. Sixty-two. Do you ever think how fast those thirty years went?"

Lee snorted. "I don't feel old, and I'm sixty-six."

"Yes, but I haven't your digestion." Hardin sucked lazily at his cigar. He had long since stopped wishing for the mild Vegan tobacco of his youth. Those days when the planet, Terminus,

had trafficked with every part of the Galactic Empire belonged in the limbo to which all Good Old Days go. Toward the same limbo where the Galactic Empire was heading. He wondered who the new emperor was—or if there was a new emperor at all—or any Empire. Space! For thirty years now, since the breakup of communications here at the edge of the Galaxy, the whole universe of Terminus had consisted of itself and the four surrounding kingdoms.

How the mighty had fallen! *Kingdoms!* They were prefects in the old days, all part of the same province, which in turn had been part of a sector, which in turn had been part of a quadrant, which in turn had been part of the all-embracing Galactic Empire. And now that the Empire had lost control over the farther reaches of the Galaxy, these little splinter groups of planets became kingdoms—with comic-opera kings and nobles, and petty, meaningless wars, and a life that went on pathetically among the ruins.

A civilization falling. Atomic power forgotten. Science fading to mythology—until the Foundation had stepped in. The Foundation that Hari Seldon had established for just that purpose here on Terminus.

Lee was at the window and his voice broke in on Hardin's reverie. "They've come," he said, "in a last-model ground car, the young pups." He took a few uncertain steps toward the door and then looked at Hardin.

Hardin smiled, and waved him back. "I've given orders to have them brought up here."

"Here! What for? You're making them too important."

"Why go through all the ceremonies of an official mayor's audience? I'm getting too old for red tape. Besides which, flattery is useful when dealing with youngsters—particularly when it doesn't commit you to anything." He winked. "Sit down, Lee, and give me your moral backing. I'll need it with this young Sermak."

"That fellow, Sermak," said Lee, heavily, "is dangerous. He's got a following, Hardin, so don't underestimate him."

"Have I ever underestimated anybody?"

"Well, then, arrest him. You can accuse him of something or other afterward."

Hardin ignored that last bit of advice. "There they are, Lee." In response to the signal, he stepped on the pedal beneath his desk, and the door slid aside.

They filed in, the four that composed the deputation, and Hardin waved them gently to the arm-chairs that faced his desk in a semicircle. They bowed and waited for the mayor to speak first.

Hardin flicked open the curiously carved silver lid of the cigar box that had once belonged to Jord Fara of the old Board of Trustees in the

long-dead days of the Encyclopedists. It was a genuine Empire product from Santanni, though the cigars it now contained were home-grown. One by one, with grave solemnity, the four of the deputation accepted cigars and lit up in ritualistic fashion.

Sef Sermak was second from the right, the youngest of the young group—and the most interesting with his bristly yellow mustache trimmed precisely, and his sunken eyes of uncertain color. The other three Hardin dismissed almost immediately; they were rank and file on the face of them. It was on Sermak that he concentrated, the Sermak who had already, in his first term in the City Council, turned that sedate body topsy-turvy more than once, and it was to Sermak that he said:

"I've been particularly anxious to see you, Councilman, even since your very excellent speech last month. Your attack on the foreign policy of this government was a most capable one."

Sermak's eyes smoldered. "Your interest honors me. The attack may or may not have been capable, but it was certainly justified."

"Perhaps! Your opinions are yours, of course. Still, you are rather young."

Dryly. "It is a fault that most people are guilty of at some period of their life. You became mayor of the city when you were two years younger than I am now."

Hardin smiled to himself. The yearling was a cool customer. He said, "I take it now that you have come to see me concerning this same foreign policy that annoys you so greatly in the Council Chamber. Are you speaking for your three colleagues, or must I listen to each of you separately?"

There were quick mutual glances among the four young men, a slight flickering of eyelids.

Sermak said grimly, "I speak for the people of Terminus—a people who are not now truly represented in the rubber-stamp body they call the Council."

"I see. Go ahead, then!"

"It comes to this, Mr. Mayor. We are dissatisfied—"

"By 'we' you mean 'the people,' don't you?"

Sermak stared hostilely, sensing a trap, and replied coldly, "I believe that my views reflect those of the majority of the voters of Terminus. Does that suit you?"

"Well, a statement like that is all the better for proof, but go on, anyway. You are dissatisfied."

"Yes, dissatisfied with the policy which for thirty years has been stripping Terminus defenseless against the inevitable attack from outside."

"I see. And therefore? Go on, go on."

"It's nice of you to anticipate. And therefore we are forming a new political party; one that will stand for the immediate needs of Terminus and not for a mystic 'manifest destiny' of future

Empire. We are going to throw you and your lick-spittle clique of appeasers out of City Hall—and that soon.”

“Unless? There’s always an ‘unless,’ you know.”

“Not much of one in this case: Unless you resign now. I’m not asking you to change your policies—I wouldn’t trust you that far. Your promises are worth nothing. An outright resignation is all we’ll take.”

“I see.” Hardin crossed his legs and teetered his chair back on two legs. “That’s your ultimatum. Nice of you to give me warning. But, you see, I rather think I’ll ignore it.”

“Don’t think it was a warning, Mr. Mayor. It was an announcement of principles and of action. The new party has already been formed, and it will begin its official activities tomorrow. There is neither room nor desire for compromise, and, frankly, it was only our recognition of your services to the City that induced us to offer the easy way out. I didn’t think you’d take it, but my conscience is clear. The next election will be a more forcible and quite irresistible reminder that resignation is necessary.”

He rose and motioned the rest up.

Hardin lifted his arm. “Hold on! Sit down!”

Sef Sermak seated himself once more with just a shade too much alacrity and Hardin smiled behind a straight face. In spite of his words, he was waiting for an offer—any offer.

Hardin said, “In exactly what way do you want our foreign policy changed? Do you want us to attack the Four Kingdoms, now, at once, and all four simultaneously?”

“I make no such suggestion, Mr. Mayor. It is our simple proposition that all appeasement cease immediately. Throughout your administration, you have carried out a policy of scientific aid to the Kingdoms. You have given them atomic power. You have helped rebuild power plants on their territories. You have established medical clinics, chemical laboratories and factories.”

“Well? And your objection?”

“You have done this in order to keep them from attacking us. With these as bribes, you have been playing the fool in a colossal game of blackmail, in which you have allowed Terminus to be sucked dry—with the result that now we are at the mercy of these barbarians.”

“In what way?”

“Because you have given them power, given them weapons, actually serviced the ships of their navies, they are infinitely stronger than they were three decades ago. Their demands are increasing, and with their new weapons, they will eventually satisfy all their demands at once by violent annexation of Terminus. Isn’t that the way blackmail usually ends?”

“And your remedy?”

“Stop the bribes immediately and while you can. Spend your effort in strengthening Terminus itself—and attack first!”

Hardin watched the young fellow’s little blond mustache with an almost morbid interest. Sermak felt sure of himself or he wouldn’t talk so much. There was no doubt that his remarks were the reflection of a pretty huge segment of the population, pretty huge.

His voice did not betray the slightly perturbed current of his thoughts. It was almost negligent. “Are you finished?”

“For the moment.”

“Well, then, do you notice the framed statement I have on the wall behind me. Read it, if you will!”

Sermak’s lips twitched. “It says: ‘Violence is the last refuge of the incompetent.’ That’s an old man’s doctrine, Mr. Mayor.”

“I applied it as a young man, Mr. Councilman—and successfully. You were busily being born when it happened, but perhaps you may have read something of it in school.”

He eyed Sermak closely and continued in measured tones, “When Heri Seldon established the Foundation here, it was for the ostensible purpose of producing a great Encyclopedia, and for fifty years we followed that will-of-the-wisp, before discovering what he was really after. By that time, it was almost too late. When communications with the central regions of the old Empire broke down, we found ourselves a world of scientists concentrated in a single city, possessing no industries, and surrounded by newly created kingdoms, hostile and largely barbarous. We were a tiny island of atomic power in this ocean of barbarism, and an infinitely valuable prize.

“Anacreon, then as now, the most powerful of the Four Kingdoms, demanded and actually established a military base upon Terminus, and the then rulers of the City, the Encyclopedists, knew very well that this was only a preliminary to taking over the entire plant. That is how matters stood when I . . . uh . . . assumed actual government. What would you have done?”

Sermak shrugged his shoulders. “That’s an academic question. Of course, I know what you did.”

“I’ll repeat it, anyway. Perhaps you don’t get the point. The temptation was great to muster what force we could and put up a fight. It’s the easiest way out, and the most satisfactory to self-respect—but, nearly invariably, the stupidest. You would have done it; you and your talk of ‘attack first.’ What I did, instead, was to visit the three other kingdoms, one by one; point out to each that to allow the secret of atomic power to fall into the hands of Anacreon was the quickest way of cutting their own throats; and suggest gently that they do the obvious thing. That was all. One month after the Anacreonian force had landed on

Terminus, their king received a joint ultimatum from his three neighbors. In seven days, the last Anacreonian was off Terminus.

"Now tell me, where was the need for violence?"

The young councilman regarded his cigar stub thoughtfully and tossed it into the incinerator chute. "I fail to see the analogy. Insulin will bring a diabetic to normal without the faintest need of a knife, but appendicitis needs an operation. You can't help that. When other courses have failed, what is left but, as you put it, the last refuge? It's your fault that we're driven to it."

"I? Oh, yes, again my policy of appeasement. You still seem to lack grasp of the fundamental necessities of our position. Our problem wasn't over with the departure of the Anacreonians. They had just begun. The Four Kingdoms were more our enemies than ever, for each wanted atomic power—and each was kept off our throats only for fear of the other three. We are balanced on the point of a very sharp sword, and the slightest sway in any direction— If, for instance, one kingdom becomes too strong; or if two form a coalition— You understand?"

"Certainly. That was the time to begin all-out preparations for war."

"On the contrary. That was the time to begin all-out prevention of war. I played them one against the other. I helped each in turn. I offered them science, trade, education, scientific medicine. I made Terminus of more value to them as a flourishing world than as a military prize. It worked for thirty years."

"Yes, but you were forced to surround these scientific gifts with the most outrageous mummery. You've made half religion, half balderdash out of it. You've erected a hierarchy of priests and complicated, meaningless ritual."

Hardin frowned. "What of that? I don't see that it has anything to do with the argument at all. I started that way at first because the barbarians looked upon our science as a sort of magical sorcery, and it was easiest to get them to accept it on that basis. The priesthood built itself and if we help it along we are only following the line of least resistance. It is a minor matter."

"But these priests are in charge of the power plants. That is *not* a minor matter."

"True, but we have trained them. Their knowledge of their tools is purely empirical; and they have a firm belief in the mummery that surrounds them."

"And if one pierces through the mummery, and has the genius to brush aside empiricism, what is to prevent him from learning actual techniques, and selling out to the most satisfactory bidder? What price our value to the kingdoms, then?"

"Little chance of that, Sermak. You are being superficial. The best men on the planets of the

kingdoms are sent here to the Foundation each year and educated into the priesthood. And the best of these remain here as research students. If you think that those who are left, with practically no knowledge of the elementals of science, or worse still, with the distorted knowledge the priests receive, can penetrate at a bound to atomic power, to electronics, to the theory of the hyper-warp—you have a very romantic and very foolish idea of science. It takes lifetimes of training and an excellent brain to get that far."

Yohan Lee had risen abruptly during the foregoing speech and left the room. He had returned now and when Hardin finished speaking, he bent to his superior's ear. A whisper was exchanged and then a leaden cylinder. Then, with one short hostile look at the deputation, Lee resumed his chair.

Hardin turned the cylinder end for end in his hands, watching the deputation through his lashes. And then he opened it with a hard, sudden twist and only Sermak had the sense not to throw a rapid look at the rolled paper that fell out.

"In short, gentlemen," he said, "the Government is of the opinion that it knows what it is doing."

He read as he spoke. There were the lines of intricate, meaningless code that covered the page and the three penciled words scrawled in one corner that carried the message. He took it in at a glance and tossed it casually into the incinerator shaft.

"That," Hardin then said, "ends the interview, I'm afraid. Glad to have met you all. Thank you for coming." He shook hands with each in perfunctory fashion, and they filed out.

Hardin had almost gotten out of the habit of laughing, but after Sermak and his three silent partners were well out of earshot, he indulged in a dry chuckle and bent an amused look on Lee.

"How did you like that battle of bluffs, Lee?"

Lee snorted grumpily. "I'm not sure that *he* was bluffing. Treat him with kid gloves and he's quite liable to win the next election, just as he says."

"Oh, quite likely, quite likely—if nothing happens first."

"Make sure they don't happen in the wrong direction this time, Hardin. I tell you this Sermak has a following. What if he doesn't wait till the next election? There was a time when you and I put things through violently, in spite of your slogan about what violence is."

Hardin cocked an eyebrow. "You are pessimistic today, Lee. And singularly contrary, too, or you wouldn't speak of violence. Our own little putsch was carried through without loss of life, you remember. It was a necessary measure put through at the proper moment, and went over smoothly, painlessly, and all but effortlessly. As

for Sermak, well, he's up against a different proposition. You and I, Lee, aren't the Encyclopedists. We stand prepared. Sick your men on to these youngsters in a nice way, old fellow. Don't let them know they're being watched—but eyes open, you understand."

Lee laughed in sour amusement. "I'd be a fine one to wait for your orders, wouldn't I, Hardin? Sermak and his men have been under surveillance for a month now."

The mayor chuckled. "Got in first, did you? All right. By the way," he observed, and added softly, "Ambassador Verisof is returning to Terminus. Temporarily, I hope."

There was a short silence, faintly horrified, and then Lee said, "Was that the message? Are things breaking already?"

"Don't know. I can't tell till I hear what Verisof has to say. They may be, though. After all, they *have* to before election. But what are you looking so dead about?"

"Because I don't know how it's going to turn out. You're too deep, Hardin, and you're playing the game too close to your chest."

"Thou, too, Brutus," murmured Hardin. And aloud, "Does that mean you're going to join Sermak's new party?"

Lee smiled against his will. "All right. You win. How about lunch now?"

Hardin stretched and nodded. "That sounds good to me."

II.

There are many epigrams attributed to Hardin—a confirmed epigrammatist—a good many of which are probably apocryphal. Nevertheless, it is reported that on a certain occasion, he said:

"It pays to be obvious, especially if you have a reputation for subtlety."

Poly Verisof had had occasion to act on that advice more than once for he was now in the fourteenth year of his double status on Anacreon—a double status the upkeep of which reminded him often and unpleasantly of a dance performed barefoot on hot metal.

To the people of Anacreon he was high priest, representative of that Foundation which, to those "barbarians," was the acme of mystery and the physical center of this religion they had created—with Hardin's help—in the last three decades. As such, he received a homage that had become horribly wearying, for from his soul he despised the ritual of which he was the center.

But to the King of Anacreon—the old one that had been, and the young grandson that was now on the throne—he was simply the ambassador of a power at once feared and coveted.

On the whole, it was an uncomfortable job, and his first trip to the Foundation in three years, despite the disturbing incident that had made it

necessary, was something in the nature of a holiday.

And since it was not the first time he had had to travel in absolute secrecy, he again made use of Hardin's epigram on the uses of the obvious.

He changed into his civilian clothes—a holiday in itself—and boarded a passenger liner to the Foundation, second class. Once at Terminus, he threaded his way through the crowd at the spaceport and called up City Hall at a public visiphone.

He said, "My name is Jan Smite. I have an appointment with the mayor this afternoon."

The dead-voiced but efficient young lady at the other end made a second connection and exchanged a few rapid words, then said to Verisof in dry, mechanical tone, "Mayor Hardin will see you in half an hour, sir," and the screen went blank.

Whereupon the ambassador to Anacreon bought the latest edition of the *Terminus City Journal*, sauntered casually to City Hall Park and, sitting down on the first empty bench he came to, read the editorial page, sport section and comic sheet while waiting. At the end of half an hour, he tucked the paper under his arm, entered City Hall and presented himself in the anteroom.

In doing all this he remained safely and thoroughly unrecognized, for since he was so entirely obvious, no one gave him a second look.

Hardin looked up at him and grinned. "Have a cigar! How was the trip?"

Verisof helped himself. "Interesting. There was a priest in the next cabin on his way here to take a special course in the preparation of radioactive synthetics—for the treatment of cancer, you know—"

"Surely, he didn't call it radioactive synthetics, now?"

"I guess *not*! It was the Holy Food to him."

The mayor smiled. "Go on."

"He inveigled me into a theological discussion and did his level best to elevate me out of sordid materialism."

"And never recognized his own high priest?"

"Without my crimson robe? Besides, he was a Smyrnian. It was an interesting experience, though. It is remarkable, Hardin, how the religion of science has grabbed hold. I've written an essay on the subject—entirely for my own amusement; it wouldn't do to have it published. Treating the problem sociologically, it would seem that when the old Empire began to rot at the fringes, it could be considered that science, as science, had failed the outer worlds. To be reaccepted it would have to present itself in another guise—and it has done just that. It works out beautifully when you use symbolic logic to help out."

"Interesting!" The mayor placed his arms behind his neck and said suddenly, "Start talking about the situation at Anacreon!"

The ambassador frowned and withdrew the cigar



from his mouth. He looked at it distastefully and put it down. "Well, it's pretty bad."

"You wouldn't be here, otherwise."

"Scarcely. Here's the position. The key man at Anacreon is the Prince Regent, Wienis. He's King Lepold's uncle."

"I know. But Lepold is coming of age next year, isn't he? I believe he'll be sixteen in February."

"Yes." Pause, and then a wry addition. "If he lives. The king's father died under suspicious circumstances. A needle bullet through the chest during a hunt. It was called an accident."

"Hmph. I seem to remember Wienis the time I was on Anacreon, when we kicked them off Terminus. It was before your time. Let's see now. If I remember, he was a dark young fellow, black hair and a squint in his right eye. He had a funny hook in his nose."

"Same fellow. The hook and the squint are still

there, but his hair's gray now. He plays the game dirty. Luckily, he's the most egregious fool on the planet. Fancies himself as a shrewd devil, too, which makes his folly the more transparent."

"That's usually the way."

"His notion of cracking an egg is to shoot an atomic blast at it. Witness the tax on Temple property he tried to impose just after the old king died two years ago. Remember?"

Hardin nodded thoughtfully, then smiled. "The priests raised a howl."

"They raised one you could hear way out to Lucreza. He's shown more caution in dealing with the priesthood since, but he still manages to do things the hard way. In a way, it's unfortunate for us; he has unlimited self-confidence."

"Probably an over-compensated inferiority complex. Younger sons of royalty get that way, you know."

"But it amounts to the same thing. He's foaming at the mouth with eagerness to attack the Foundation. He scarcely troubles to conceal it. And he's in a position to do it, too, from the standpoint of armament. The old king built up a magnificent navy, and Wienis hasn't been sleeping the last two years. In fact, the tax on Temple property was originally intended for further armament, and when that fell through he increased the income tax twice."

"Any grumbling at that?"

"None of serious importance. Obedience to appointed authority was the text of every sermon in the kingdom for weeks. Not that Wienis showed me any gratitude."

"All right. I've got the background. Now what's happened?"

"Two weeks ago an Anacreonian merchant ship came across a derelict battle cruiser of the old Imperial Navy. It must have been drifting in space for at least three centuries."

Interest flickered in Hardin's eyes. He sat up. "Yes, I'd heard of that. The Board of Navigation has sent me a petition asking me to obtain the ship for purposes of study. It is in good condition, I understand."

"In entirely too good condition," responded Verisof, dryly. "When Wienis received your suggestion last week that he turn the ship over to the Foundation, he almost had convulsions."

"He hasn't answered yet."

"He won't—except with guns, or so he thinks. You see, he came to me on the day I left Anacreon and requested that the Foundation put this battle cruiser into fighting order and turn it over to the Anacreonian navy. He had the infernal gall to say that your note of last week indicated a plan of the Foundation's to attack Anacreon. He said that refusal to repair the battle cruiser would confirm his suspicions; and indicated that measures for the self-defense of Anacreon would be forced upon him. Those are his words. Forced upon him! And that's why I'm here."

Hardin laughed gently.

Verisof smiled and continued, "Of course, he expects a refusal, and it would be a perfect excuse—in his eyes—for immediate attack."

"I see that, Verisof. Well, we have at least six months to spare, so have the ship fixed up and present it with my compliments. Have it renamed the *Wienis* as a mark of our esteem and affection." He laughed again.

And again Verisof responded with the faintest trace of a smile, "I suppose it's the logical step, Hardin—but I'm worried."

"What about?"

"It's a *ship*! They could *build* in those days. Its cubic capacity is half again that of the entire Anacreonian navy. It's got atomic blasts capable of blowing up a planet, and a shield that could

take a Q-beam without working up radiation. Too much of a good thing, Hardin—"

"Superficial, Verisof, superficial. You and I both know that the armament he now has could defeat Terminus handily, long before we could repair the cruiser for our own use. What does it matter, then, if we give him the cruiser as well? You know it won't ever come to actual war."

"I suppose so. Yes." The ambassador looked up. "But Hardin—"

"Well? Why do you stop? Go ahead."

"Look. This isn't my province. But I've been reading the paper." He placed the *Journal* on the desk and indicated the front page. "What's this all about?"

Hardin dropped a casual glance. "'A group of Councilmen are forming a new political party.'"

"That's what it says." Verisof fidgeted. "I know you're in better touch with internal matters than I am, but they're attacking you with everything short of physical violence. How strong are they?"

"Damned strong. They'll probably control the Council after next election."

"Not before?" Verisof looked at the mayor obliquely. "There are ways of gaining control besides elections."

"Do you take me for Wienis?"

"No. But repairing the ship will take months and an attack after that is certain. Our yielding will be taken as a sign of appalling weakness and the addition of the Imperial Cruiser will just about double the strength of Wienis' navy. He'll attack as sure as I'm a high priest. Why take chances? Do one of two things. Either reveal the plan of campaign to the Council, or force the issue with Anacreon now!"

Hardin frowned. "Force the issue now? Before the crisis comes? It's the one thing I mustn't do. There's Hari Seldon and the Plan, you know."

Verisof hesitated, then muttered, "You're absolutely sure, then, that there is a Plan?"

"There can scarcely be any doubt," came the stiff reply. "I was present at the opening of the Time Vault and Seldon's recording revealed it then."

"I didn't mean that, Hardin. I just don't see how it could be possible to chart history for a thousand years ahead. Maybe Seldon overestimated himself." He shriveled a bit at Hardin's ironical smile, and added, "Well, I'm no psychologist."

"Exactly. None of us are. But I did receive some elementary training in my youth—enough to know what psychology is capable of, even if I can't exploit its capabilities myself. There's no doubt but that Seldon did exactly what he claims to have done. The Foundation, as he says, was established as a scientific refuge—the means by

which the science and culture of the dying Empire was to be preserved through the centuries of barbarism that have begun, to be rekindled in the end into a second Empire."

Verisof nodded, a trifle doubtfully. "Everyone knows that's the way things are *supposed* to go. But can we afford to take chances? Can we risk the present for the sake of a nebulous future?"

"We must—because the future isn't nebulous. It's been calculated out by Seldon and charted. Each successive crisis in our history is mapped and each depends in a measure on the successful conclusion of the ones previous. This is only the second crisis and Space knows what effect even a trifling deviation would have in the end."

"That's rather empty speculation."

"No! Hari Seldon said in the Time Vault, that at each crisis our freedom of action would become circumscribed to the point where only one course of action was possible."

"So as to keep us on the straight and narrow?"

"So as to keep us from deviating, yes. But, conversely, as long as *more* than one course of action is possible, the crisis has not been reached. We *must* let things drift so long as we possibly can, and by space, that's what I intend doing."

Verisof didn't answer. He chewed his lower lip in a grudging silence. It had only been the year before that Seldon had first discussed the problem with him—the real problem; the problem of countering Anacreon's hostile preparations. And then only because he, Verisof, had balked at further appeasement.

Hardin seemed to follow his ambassador's thoughts. "I would much rather never to have told you anything about this."

"What makes you say that?" cried Verisof, in surprise.

"Because there are six people now—you and I, the other three ambassadors and Yohan Lee—who have a fair notion of what's ahead; and I'm damned afraid that it was Seldon's idea to have no one know."

"Why so?"

"Because even Seldon's advanced psychology was limited. It could not handle too many independent variables. He couldn't work with individuals over any length of time; any more than you could apply the kinetic theory of gases to single molecules. He worked with mobs, populations of whole planets, and only *blind* mobs who do not possess foreknowledge of the results of their own actions."

"That's not plain."

"I can't help it. I'm not psychologist enough to explain it scientifically. But this you know. There are no trained psychologists on Terminus and no mathematical texts on the science. It is plain that he wanted no one on Terminus capable of working out the future in advance. Seldon

wanted us to proceed blindly—and therefore correctly—according to the law of mob psychology. As I once told you, I never knew where we were heading when I first drove out the Anacreonians. My idea had been to maintain balance of power, no more than that. It was only afterward that I thought I saw a pattern in events; but I've done my level best not to act on that knowledge. Interference due to foresight would have knocked the Plan out of kilter."

Verisof nodded thoughtfully. "I've heard arguments almost as complicated in the Temples back on Anacreon. How do you expect to spot the right moment of action?"

"It's spotted already. You admit that once we repair the battle cruiser nothing will stop Wienis from attacking us. There will no longer be any alternative in that respect."

"Yes."

"All right. That accounts for the external aspect. Meanwhile, you'll further admit that the next election will see a new and hostile Council that will force action against Anacreon. There is no alternative there."

"Yes."

"And as soon as all the alternatives disappear, the crisis has come. Just the same—I get worried."

He paused, and Verisof waited. Slowly, almost reluctantly, Hardin continued, "I've got the idea—just a notion—that the external and internal pressures were planned to come to a head simultaneously. As it is, there's a few months difference. Wienis will probably attack before spring, and elections are still a year off."

"That doesn't sound important."

"I don't know. It may be due merely to unavoidable errors of calculation, or it might be due to the fact that I knew too much. I tried never to let my foresight influence my action, but how can I tell? And what effect will the discrepancy have? Anyway," he looked up, "there's one thing I've decided."

"And what's that?"

"When the crisis does begin to break, I'm going to Anacreon. I want to be on the spot. . . . Oh, that's enough, Verisof. It's getting late. Let's go out and make a night of it. I want some relaxation."

"Then get it right here," said Verisof. "I don't want to be recognized, or you know what this new party your precious Councilmen are forming would say. Call for the brandy."

And Hardin did—but not for too much.

III.

In the ancient days when the Galactic Empire had embraced the Galaxy, and Anacreon had been the richest of the prefects of the Periphery, more

than one emperor had visited the Viceregal Palace in state. And not one had left without at least one effort to pit his skill with air speedster and needle gun against the feathered flying fortress they called the Nyak-bird.

The fame of Anacreon had withered to nothing with the decay of the times. The Viceregal Palace was a drafty mass of ruins except for the wing that Foundation workmen had restored. And no Emperor had been seen or heard of in Anacreon for two hundred years.

But Nyak hunting was still the royal sport and a good eye with the needle gun still the first requirement of Anacreon's kings.

Lepold I, King of Anacreon and—as was invariably, but untruthfully added—Lord of the Outer Dominions, though not yet sixteen had already proved his skill many times over. He had brought down his first Nyak when scarcely thirteen; had brought down his tenth the week after his accession to the throne; and was returning now from his forty-sixth.

"Fifty before I come of age," he had exulted. "Who'll take the wager?"

But courtiers don't take wagers against the king's skill. There is the deadly danger of winning. So no one did, and the king left to change his clothes in high spirits.

"Lepold!"

The king stopped mid-step at the one voice that could cause him to do so. He turned sulkily.

Wienis stood upon the threshold of his chambers and beetled at his young nephew.

"Send them away," he motioned impatiently. "Get rid of them."

The king nodded curtly and the two chamberlains bowed and backed down the stairs. Lepold entered his uncle's room.

Wienis stared at the king's hunting suit morosely. "You'll have more important things to tend to than Nyak hunting soon enough."

He turned his back and stumped to his desk. Since he had grown too old for the rush of air, the perilous dive within wing-beat of the Nyak, the roll and climb of the speedster at the motion of a foot, he had soured upon the whole sport.

Lepold appreciated his uncle's sour-grapes attitude and it was not without malice that he began enthusiastically, "But you should have been with us today, uncle. We flushed one in the wilds of Samia that was a monster. And game as they come. We had it out for two hours over at least seventy square miles of ground. And then I got to Sunwards"—he was motioning graphically, as though he were once more in his speedster—"and dived torque-wise. Caught him on the rise just under the left wing at quarters. It maddened him and he canted athwart. I took his dare and veered a-left, waiting for the plummet. Sure enough,

down he came. He was within wing-beat before I moved and then—"

"Lepold!"

"Well!—I got him."

"I'm sure you did. Now *will* you attend?"

The king shrugged and gravitated to the end table where he nibbled at a Lera nut in quite an unregal sulk. He did not dare to meet his uncle's eyes.

Wienis said, by way of preamble, "I've been to the ship today."

"What ship?"

"There is only one ship. *The ship*. The one the Foundation is repairing for the navy. The old Imperial cruiser. Do I make myself sufficiently plain?"

"That one? You see, I told you the Foundation would repair it if we asked them to. It's all poppycock, you know, that story of yours about their wanting to attack us. Because if they did, why would they fix the ship? It doesn't make sense, you know."

"Lepold, you're a fool!"

The king, who had just discarded the shell of the Lera nut and was lifting another to his lips, flushed.

"Well now, look here," he said, with anger that scarcely rose above peevishness, "I don't think you ought to call me that. You forget yourself. I'll be of age in two months, you know."

"Yes, and you're in a fine position to assume regal responsibilities. If you spent half the time on public affairs that you do on Nyak hunting, I'd resign the regency directly with a clear conscience."

"I don't care. That has nothing to do with the case, you know. The fact is that even if you are the regent and my uncle, I'm still king and you're still my subject. You oughtn't to call me a fool and you oughtn't to sit in my presence, anyway. You haven't asked my permission. I think you ought to be careful, or I might do something about it—pretty soon."

Wienis' gaze was cold. "May I refer to you as 'your majesty'?"

"Yes."

"Very well! You are a fool, your majesty!"

His dark eyes blazed from beneath his grizzled brows and the young king sat down slowly. For a moment, there was sardonic satisfaction in the regent's face, but it faded quickly. His thick lips parted in a smile and one hand fell upon the king's shoulder.

"Never mind, Lepold. I should not have spoken harshly to you. It is difficult sometimes to behave with true propriety when the pressure of events is such as— You understand?" But if the words were conciliatory, there was something in his eyes that had not softened.

Lepold said uncertainly, "Yes. Affairs of State are deuced difficult, you know." He wondered, not without apprehension whether he were not in for a dull siege of meaningless details on the year's trade with Smyrno and the long, wrangling dispute over the sparsely settled worlds of the Red Corridor.

Wienis was speaking again. "My boy, I had thought to speak of this to you earlier, and perhaps I should have, but I know that your youthful spirits are impatient of the dry detail of statecraft."

Lepold nodded. "Well, that's all right—"

His uncle broke in firmly and continued, "However, you will come of age in two months. Moreover, in the difficult times that are coming, you will have to take a full and active part. You will be *king* henceforward, Lepold."

Again Lepold nodded, but his expression was quite blank.

"There will be war, Lepold."

"War! But there's been truce with Smyrno—"

"Not Smyrno. The Foundation itself."

"But, uncle, they've agreed to repair the ship. You said—"

His voice choked off at the twist of his uncle's lip.

"Lepold"—some of the friendliness had gone—"we are to talk man to man. There is to be war with the Foundation, whether the ship is repaired or not; all the sooner, in fact, since it is being repaired. The Foundation is the source of power and might. All the greatness of Anacreon; all its ships and its cities and its people and its commerce depend on the dribbles and leavings of power that the Foundation have given us grudgingly. I remember the time—I, myself—when the cities of Anacreon were warmed by the burning of coal and oil. But never mind that; you would have no conception of it."

"It seems," suggested the king, timidly, "that we ought to be grateful—"

"Grateful?" roared Wienis. "Grateful that they begrudge us the merest dregs, while keeping space knows what for themselves—and keeping it with what purpose in mind? Why, only that they may some day rule the Galaxy."

His hand came down on his nephew's knee, and his eyes narrowed. "Lepold, you are king of Anacreon. Your children and your children's children may be kings of the universe—if you have the power that the Foundation is keeping from us!"

"There's something in that." Lepold's eyes gained a sparkle and his back straightened. "After all, what right have they to keep it to themselves. Not fair, you know. Anacreon counts for something, too."

"You see, you're beginning to understand. And now, my boy, what if Smyrno decides to attack the

Foundation for its own part and thus gains all that power? How long do you suppose we could escape becoming a vassal power? How long would you hold your throne?"

Lepold grew excited. "Space, yes. You're absolutely right, you know. We must strike first. It's simply self-defense."

Wienis' smile broadened slightly. "Furthermore, once, at the very beginning of the reign of your grandfather, Anacreon actually established a military base on the Foundation's planet, Terminus—a base vitally needed for national defense. We were forced to abandon that base as a result of the machinations of the leader of that Foundation, a sly cur, a scholar, with not a drop of noble blood in his veins. You understand, Lepold? Your grandfather was humiliated by this commoner. I remember him! He was scarcely older than myself when he came to Anacreon with his devil's smile and devil's brain—and the power of the other three kingdoms behind him, combined in cowardly union against the greatness of Anacreon."

Lepold flushed and the sparkle in his eyes blazed. "By Seldon, if I had been my grandfather, I would have fought even so."

"No, Lepold. We decided to wait—to wipe out the insult at a fitter time. It had been your father's hope, before his untimely death, that he might be the one to— Well, well!" Wienis turned away for a moment. Then, as if stifling emotion, "He was my brother. And yet, if his son were—"

"Yes, uncle, I'll not fail him. I have decided. It seems only proper that Anacreon wipe out this nest of trouble makers, and that immediately."

"No, not immediately. First, we must wait for the repairs of the battle cruiser to be completed. The mere fact that they are willing to undertake these repairs proves that they fear us. The fools attempt to placate us, but we are not to be turned from our path, are we?"

And Lepold's fist slammed against his cupped palm. "Not while I am king in Anacreon."

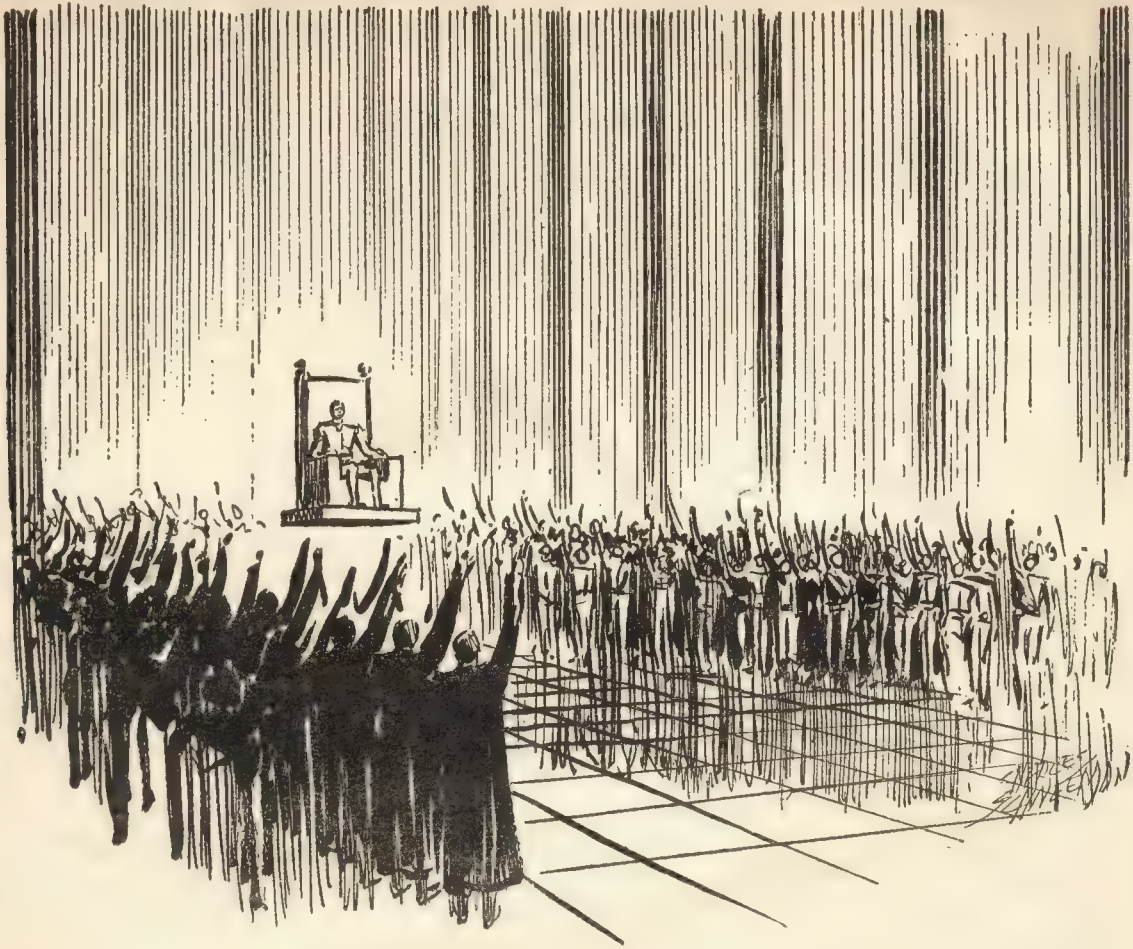
Wienis' lip twitched sardonically. "Besides which we must wait for Salvor Hardin to arrive."

"Salvor Hardin!" The king grew suddenly round-eyed, and the youthful contour of his beardless face lost the almost hard lines into which they had been compressed.

"Yes, Lepold, the leader of the Foundation himself is coming to Anacreon on your birthday—probably to soothe us with buttered words. But it won't help him."

"Salvor Hardin!" It was the merest murmur.

Wienis frowned. "Are you afraid of the name? It is the same Salvor Hardin, who on his previous visit, ground our noses into the dust. You're not forgetting that deadly insult to the royal house?"



And from a commoner. The dregs of the gutter."

"No. I guess not. No, I won't. I won't! We'll pay him back—but . . . but—" I'm afraid—a little."

The regent rose. "Afraid? Of what? Of what, you young—" He choked off.

"It would be . . . uh . . . sort of blasphemous, you know, to attack the Foundation. I mean—" He paused.

"Go on."

Lepold said confusedly, "I mean, if there were *really* a Galactic Spirit, he . . . uh . . . it mightn't like it. Don't you think?"

"No, I don't," was the hard answer. Wienis sat down again and his lips twisted in a queer smile. "And so you really bother your head a great deal over the Galactic Spirit, do you? That's what comes of letting you run wild. You've been listening to Verisof quite a bit, I take it."

"He's explained a great deal—"

"About the Galactic Spirit?"

"Yes."

"Why, you unweaned cub, he believes in that mummery a good deal less than I do, and I don't believe in it at all. How many times have you been told that all this talk is nonsense?"

"Well, I know that. But Verisof says—"

"Damnation to Verisof. It's nonsense."

There was a short, rebellious silence, and then
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Lepold said, "Everyone believes it just the same. I mean all this talk about the Prophet Hari Seldon and how he appointed the Foundation to carry out his commandments that there might some day be a return of the Earthly Paradise; and how anyone who disobeys his commandments will be destroyed for eternity. They believe it. I've presided at festivals, and I'm sure they do."

"Yes, *they* do; but *we* don't. And you may be thankful it's so, for according to this foolishness, you are king by divine right—and are semi-divine yourself. Very handy. It eliminates all possibilities of revolts and insures absolute obedience in everything. And that is why, Lepold, you must take an active part in ordering the war against the Foundation. I am only regent, and quite human. You are king, and more than half a god—to them."

"But I suppose I'm not really," said the king, reflectively.

"No, not really," came the ironic response, "but you are to everyone but the people of the Foundation. Get that? To everyone but those of the Foundation. Once they are removed there will be no one to deny you the godhead. Think of that!"

"And after that we will ourselves be able to operate the power boxes of the temples and the ships that fly without men and the holy food that

cures cancer and all the rest? Verisof said only those blessed with the Galactic Spirit could—"

"Yes, Verisof said! Verisof, next to Salvor Hardin, is your greatest enemy. Stay with me, Lepold, and don't worry about them. Together we will recreate an empire—not just the kingdom of Anacreon—but one comprising every one of the billions of suns of the Galaxy. Is that better than a wordy 'Earthly Paradise'?"

"Ye-es."

"Can Verisof promise more?"

"No."

"Very well." His voice became peremptory. "I suppose we may consider the matter settled." He waited for no answer. "Get along. I'll be down later. And just one thing, Lepold."

The young king turned on the threshold.

Wienis was smiling with all but his eyes. "Be careful on these Nyak hunts, my boy. Since the unfortunate accident to your father, I have had the strangest presentiments concerning you, at times. In the confusion, with needle guns thickening the air with darts, one can never tell. You *will* be careful, I hope. And you'll do as I say about the Foundation, won't you?"

Lepold's eyes widened and dropped away from those of his uncle. "Yes—certainly."

"Good!" He stared after his departing nephew, expressionlessly, and returned to his desk.

And Lepold's thoughts as he left were somber and not unfearful. Perhaps it *would* be best to defeat the Foundation and gain the power Wienis spoke of. But afterward, when the war was over and he was secure on his throne— He became acutely conscious of the fact that Wienis and his two arrogant sons were at present next in line to the throne.

But he was king. And kings could order people shot.

Even uncles and cousins.

IV.

Next to Sermak himself, Lewis Bort was most active in rallying those dissident elements which had fused into the now-vociferous Aement Party. Yet he had not been one of the deputation that had called on Salvor Hardin almost half a year previously. That this was so was not due to any lack of recognition of his efforts; quite the contrary. He was absent for the very good reason that he was on Anacreon's capital world at the time.

He visited it as a private citizen. He saw no official and he did nothing of importance. He merely watched the obscure corners of the busy planet and poked his stubby nose into dusty cran- nies.

He arrived home toward the end of a short winter day that had started with clouds and was fin-

ishing with snow and within an hour was seated at the octagonal table in Sermak's home.

His first words were not calculated to improve the atmosphere of a gathering already considerably depressed by the deepening snow-filled twilight outside.

"I'm afraid," he said, "that our position is what is usually termed, in melodramatic phraseology, a 'Lost Cause.'"

"You think so?" said Sermak, gloomily.

"It's gone past thought, Sermak. There's no room for any other opinion."

"Armaments—" began Dokor Walto, somewhat officiously, but Bort broke in at once.

"Forget that. That's an old story." His eyes traveled round the circle. "I'm referring to the people. I admit that it was my idea originally that we attempt to foster a palace rebellion of some sort to install as king someone more favorable to the Foundation. It was a good idea. It still is. The only trifling flaw about it is that it is impossible. The great Salvor Hardin saw to that."

Sermak said sourly, "If you'd give us the details, Bort—"

"Details! There aren't any! It isn't as simple as that. It's the whole damned situation on Anacreon. It's this religion the Foundation has established. It works!"

"Well!"

"You've got to see it work to appreciate it. All you see here is that we have a large school devoted to the training of priests, and that occasionally a special show is put on in some obscure corner of the city for the benefit of pilgrims—and that's all. The whole business hardly affects us as a general thing. But on Anacreon—"

Lem Tarki smoothed his prim little Vandyke with one finger, and cleared his throat. "What kind of a religion is it? Hardin's always said that it was just a fluffy flummery to get them to accept our science without question. You remember, Sermak, he told us that day—"

"Hardin's explanations," reminded Sermak, "don't often mean much at face value. But what kind of a religion is it, Bort?"

Bort considered. "Ethically, it's fine. It scarcely varies from the various philosophies of the old Empire. High moral standards and all that. There's nothing to complain about it from that viewpoint. Religion is one of the great civilizing influences of history and in that respect, it's fulfilling—"

"We know that," interrupted Sermak, impatiently. "Get to the point."

"Here it is." Bort was a trifle disconcerted, but didn't show it. "The religion—which the Foundation has fostered and encouraged, mind you—is built on strictly authoritarian lines. The priesthood has sole control of the instruments of sci-

ence we have given Anacreon, but they've learned to handle these tools only empirically. They believe in this religion entirely, and in the . . . uh . . . spiritual values of the power they handle. For instance, two months ago some fool tampered with the power plant in the Thessalekian Temple—one of the large ones. He blew up five city blocks, of course. It was considered divine vengeance by everyone, including the priests."

"I remember. The papers had some garbled version of the story at the time. I don't see what you're driving at."

"Then, listen," said Bort, stiffly. "The priesthood forms a hierarchy at the apex of which is the king, who is regarded as a sort of minor god. He's an absolute monarch by divine right, and the people believe it, thoroughly, and the priests, too. You can't overthrow a king like that. Now do you see the point?"

"Hold on," said Walto, at this point. "What did you mean when you said Hardin's done all this? How does he come in?"

Bort glanced at his questioner bitterly. "The Foundation has fostered this delusion assiduously. We've put all our scientific backing behind the hoax. There isn't a festival at which the king does not preside surrounded by a radioactive aura shining forth all over his body and raising itself like a coronet above his head. Anyone touching him is severely burned. He can move from place to place through the air at crucial moments, supposedly by inspiration of divine spirit. He fills the temple with a pearly, internal light at a gesture. There is no end to these quite simple tricks that we perform for his benefit; but even the priests believe them, while working them personally."

"Bad!" said Sermak, biting his lip.

"I could cry—like the fountain in City Hall Park," said Bort, earnestly, "when I think of the chance we muffed. Take the situation thirty years ago, when Hardin saved the Foundation from Anacreon—Space held up. At that time, the Anacreonian people had no real conception of the fact that the Empire was running down. They had been more or less running their own affairs since the Zeonian revolt, but even after communications broke down and Lepold's pirate of a grandfather made himself king, they never quite realized the Empire had gone kaput.

"If the emperor had had the nerve to try, he could have taken over again with two cruisers and with the help of the internal revolt that would have certainly sprung to life. And we, we could have done the same; but no, Hardin established monarch worship. Personally, I don't understand it. Why? Why? Why?"

"What," demanded Jaim Orsy, suddenly, "does Verisof do? There was a day when he was an

advanced Actionist. What's he doing there? Is he blind, too?"

"I don't know," said Bort, curtly. "He's high priest to them. As far as I know, he does nothing but act as adviser to the priesthood on technical details. Figurehead, blast him, figurehead!"

There was silence all round, and all eyes turned to Sermak. The young party leader was biting a fingernail nervously, and then said loudly, "No good. It's fishy!"

He looked around him, and added more energetically, "Is Hardin then such a fool?"

"Seems to be," shrugged Bort.

"Never! There's something wrong. To cut our own throats so thoroughly and so hopelessly would require colossal stupidity. More than Hardin could possibly have even if he were a fool, which I deny. On the one hand, to establish a religion that would wipe out all chance of internal troubles. On the other hand, to arm Anacreon with all weapons of warfare. I don't see it."

"The matter is a little obscure, I admit," said Bort, "but the facts are there. What else can we think?"

Waldo said, jerkily, "Outright treason. He's in their pay."

But Sermak shook his head impatiently. "I don't see that, either. The whole affair is as insane and meaningless— Tell me, Bort, have you heard anything about a battle cruiser that the Foundation is supposed to have put into shape for use in the Anacreon navy?"

"Battle cruiser?"

"An old Imperial cruiser—"

"No, I haven't. But that doesn't mean much. The navy yards are religious sanctuaries completely inviolate on the part of the lay public. No one ever hears anything about the fleet."

"Well, rumors have leaked out. Some of the Party have brought the matter up in Council. Hardin never denied it, you know. His spokesmen denounced rumor mongers and let it go at that. It might have significance."

"It's of a piece with the rest," said Bort. "If true, it's absolutely crazy. But it wouldn't be worse than the rest."

"I suppose," said Orsy, "Hardin hasn't any secret weapon waiting. That might—"

"Yes," said Sermak, viciously, "a huge jack-in-the-box that will jump out at the psychological moment and scare old Wienis into fits. The Foundation may as well blow itself out of existence and save itself the agony of suspense if it has to depend on any secret weapon."

"Well," said Orsy, changing the subject hurriedly, "the question comes down to this: How much time have we left? Eh, Bort?"

"All right. It is the question. But don't look at me; I don't know. The Anacreonian press

never mentions the Foundation at all. Right now, it's full of the approaching celebrations and nothing else. Lepold is coming of age next week, you know."

"We have months then." Walto smiled for the first time that evening. "That gives us time—"

"That gives us time, my *foot*," ground out Bort, impatiently. "The king's a god, I tell you. Do you suppose he has to carry on a campaign of propaganda to get his people into fighting spirit? Do you suppose he has to accuse us of aggression and pull out all stops on cheap emotionalism? When the time comes to strike, Lepold gives the order and the people fight. Just like that. That's the damnedness of the system. You don't question a god. He may give the order tomorrow for all I know; and you can wrap tobacco round that and smoke it."

Everyone tried to talk at once and Sermak was slamming the table for silence, when the front door opened and Levi Norast stamped in. He bounded up the stairs, overcoat on, trailing snow.

"Look at that!" he cried, tossing a cold, snow-speckled newspaper onto the table. "The visicasters are full of it, too."

The newspaper was unfolded and five heads bent over it.

Sermak said, in a hushed voice, "Great Space, he's going to Anacreon! *Going to Anacreon!*"

"It is treason," squeaked Tarki, in sudden excitement. "I'll be damned if Walto isn't right. He's sold us out and now he's going there to collect his wage."

Sermak had risen. "We've no choice now. I'm going to ask the Council tomorrow that Hardin be impeached. And if *that* fails—"

V.

The snow had ceased, but it caked the ground deeply now and the sleek ground car advanced through the deserted streets with lumbering effort. The murky gray light of incipient dawn was cold not only in the poetical sense but also in a very literal way—and even in the then turbulent state of the Foundation's politics, no one, whether Actionist or pro-Hardin found his spirits sufficiently ardent to begin street activity that early.

Yohan Lee did not like that and his grumblings grew audible. "It's going to look bad, Hardin. They're going to say you sneaked away."

"Let them say it if they wish. I've got to get to Anacreon and I want to do it without trouble. Now that's enough, Lee."

Hardin leaned back into the cushioned seat and shivered slightly. It wasn't cold inside the well-heated car, but there was something frigid about a snow-covered world, even through glass, that annoyed him.

He said, reflectively, "Some day when we get

around to it we ought to weather-condition Terminus. It could be done."

"I," replied Lee, "would like to see a few other things done first. For instance, what about weather-conditioning Sermak. A nice, dry cell fitted for twenty-five centigrade all year round would be just right."

"And then I'd *really* need bodyguards," said Hardin, "and not just those two." He indicated two of Lee's bully-boys sitting up front with the driver, hard eyes on the empty streets, ready hands at their atom blasts. "You evidently want to stir up civil war."

"I do? There are other sticks in the fire and it won't require much stirring, I can tell you." He counted off on blunt fingers, "One: Sermak raised hell yesterday in the City Council and called for an impeachment."

"He had a perfect right to do so," responded Hardin, coolly. "Besides which, his motion was defeated 206 to 184."

"Certainly. A majority of twenty-two when we had counted on sixty as a minimum. Don't deny it; you know you did."

"It was close," admitted Hardin.

"All right. And two: After the vote, the fifty-nine members of the Actionist Party reared up on their hind legs and stamped out of the Council Chambers."

Hardin was silent, and Lee continued, "And three: Before leaving, Sermak howled that you were a traitor, that you were going to Anacreon to collect your thirty pieces of silver, that the Chamber majority in refusing to vote impeachment had participated in the treason, and that the name of their party was not 'Actionist' for nothing. What does *that* sound like?"

"Trouble, I suppose."

"And now you're chasing off at daybreak, like a criminal. You ought to face them, Hardin—and if you have to, declare martial law, by Space!"

"Violence is the last refuge—"

"—Of the incompetent. Nuts!"

"All right. We'll see. Now listen to me carefully, Lee. Thirty years ago, the Time Vault opened, and on the fiftieth anniversary of the beginning of the Foundation, there appeared a Hari Seldon recording to give us our first idea of what was really going on."

"I remember," Lee nodded reminiscently, with a half smile. "It was the day we took over the government."

"That's right. It was the time of our first major crisis. This is our second—and three weeks from date will be the eightieth anniversary of the beginning of the Foundation. Does that strike you as in any way significant?"

"You mean he's coming again?"

"I'm not finished. Seldon never said anything about returning, you understand, but that's of a

piece with his whole plan. He's always done his best to keep all foreknowledge from us. Nor is there any way of telling whether the radium lock is set for further openings short of dismantling the Vault—and it's probably set to destroy itself if we were to try that. I've been there every anniversary since the first appearance, just on the chance. He's never shown up, but this is the first time since then that there's really been a crisis."

"Then he'll come."

"Maybe. I don't know. However, this is the point. At today's session of the Council, just after you announce that I have left for Anacreon, you will further announce, officially, that on March 14th next, there will be another Hari Seldon recording, containing a message of the utmost importance regarding the recent successfully concluded crisis. That's very important, Lee. Don't add anything more no matter how many questions are asked."

Lee stared. "Will they believe it?"

"That doesn't matter. It will confuse them, which is all I want. Between wondering whether it is true and what I mean by it if it isn't—they'll decide to postpone action till after March 14th. I'll be back considerably before then."

Lee looked uncertain. "But that 'successfully concluded.' That's bull!"

"Highly confusing bull. Here's the airport!"

The waiting spaceship bulked somberly in the dimness. Hardin stamped through the snow toward it and at the open air lock turned about with outstretched hand.

"Good-bye, Lee. I hate to leave you in the frying pan like this, but there's not another I can trust. Now please keep out of the fire."

"Don't worry. The frying pan is hot enough. I'll follow orders." He stepped back, and the air lock closed.

VI.

Salvor Hardin did not travel to the planet Anacreon—from which planet the kingdom derived its name—immediately. It was only on the day before the coronation that he arrived, after having made flying visits to eight of the larger stellar systems of the kingdom, stopping only long enough to confer with the local representatives of the Foundation.

The trip left him with an oppressive realization of the vastness of the kingdom. It was a little splinter, an insignificant fly speck compared to the inconceivable reaches of the Galactic Empire of which it had once formed so distinguished a part; but to one whose habits of thought had been built around a single planet, and a sparsely settled one at that, Anacreon's size in area and population was staggering.

Following closely the boundaries of the old Prefect of Anacreon, it embraced twenty-five stellar

systems, six of which included more than one habitable world. The population of nineteen billion, though still far less than it had been in the Empire's heyday was rising rapidly with the increasing scientific development fostered by the Foundation.

And it was only now that Hardin found himself floored by the magnitude of *that* task. Even in thirty years, only the capital world had been completely powered. The outer provinces still possessed immense stretches where atomic power had not yet been re-introduced. Even the progress that *had* been made might have been impossible had it not been for the still workable relics left over by the ebbing tide of Empire.

When Hardin did arrive at the capital world, it was to find all normal business at an absolute standstill. In the outer provinces there had been and still were celebrations; but here on the planet Anacreon, not a person but took feverish part in the hectic religious pageantry that heralded the coming-of-age of their god-king, Lepold.

Hardin had been able to snatch only half an hour from a haggard and harried Verisof before his ambassador was forced to rush off to supervise still another temple festival. But the half-hour was a most profitable one, and Hardin prepared himself for the night's fireworks well satisfied.

In all, he acted as an observer, for he had no stomach for the religious tasks he would undoubtedly have had to undertake if his identity became known. So, when the palace's ballroom filled itself with a glittering horde of the kingdom's very highest and most exalted nobility, he found himself hugging the wall, little noticed or totally ignored.

He had been introduced to Lepold as one of a long line of introducees, and from a safe distance, for the king stood apart in lonely and impressive grandeur, surrounded by his deadly blaze of radioactive aura. And in less than an hour this same king would take his seat upon the massive throne of rhodium-iridium alloy with jewel-set gold chasings, and then, throne and all would rise majestically into the air, skim the ground slowly to hover before the great window from which the great crowds of common folk could see their king and shout themselves into near apoplexy. The throne would not have been so massive, of course, if it had not had an atomic motor built into it.

It was past eleven. Hardin fidgeted and stood on his toes to better his view. He resisted an impulse to stand on a chair. And then he saw Wienis threading through the crowd toward him and he relaxed.

Wienis' progress was slow. At almost every step, he had to pass a kindly sentence with some revered noble whose grandfather had helped Le-



pold's grandfather brigandize the kingdom and had received a dukedom therefor.

And then he disentangled himself from the last uniformed peer and reached Hardin. His smile crooked itself into a smirk and his black eyes peered from under grizzled brows with glints of satisfaction in them.

"My dear Hardin," he said, in a low voice, "you must expect to be bored, when you refuse to announce your identity."

"I am not bored, your highness. This is all extremely interesting. We have no comparable spectacles on Terminus, you know."

"No doubt. But would you care to step into my private chambers, where we can speak at greater length and with considerably more privacy?"

"Certainly."

With arms linked, the two ascended the staircase, and more than one dowager duchess raised her lorgnette in surprise and wonder at the identity of this insignificantly dressed and uninteresting-looking stranger on whom such signal honor

was being conferred by the prince regent.

In Wienis' chambers, Hardin relaxed in perfect comfort and accepted with a murmur of gratitude the glass of liquor that had been poured out by the regent's own hand.

"Locris wine, Hardin," said Wienis, "from the royal cellars. The real thing—two centuries in age. It was laid down ten years before the Zeonian Rebellion."

"A really royal drink," agreed Hardin, politely. "To Lepold I, King of Anacreon."

They drank, and Wienis added blandly, at the pause, "And soon to be Emperor of the Periphery, and further, who knows? The Galaxy may some day be reunited."

"Undoubtedly. By Anacreon?"

"Why not? With the help of the Foundation, our scientific superiority over the rest of the Periphery would be undisputable."

Hardin set his empty glass down and said, "Well, yes, except that, of course, the Foundation is bound to help any nation that requests scientific aid of it. Due to the high idealism of our government and the great moral purpose of our founder, Hari Seldon, we are unable to play favorites. That can't be helped, your highness."

Wienis' smile broadened. "The Galactic Spirit, to use the popular cant, helps those who help themselves. I quite understand that, left to itself, the Foundation would never co-operate."

"I wouldn't say that. We repaired the Imperial cruiser for you, though my board of navigation wished it for themselves for research purposes."

The regent repeated the last words ironically. "Research purposes! Yes! Yet you would not have repaired it, had I not threatened war."

Hardin made a deprecatory gesture. "I don't know."

"I do. And that threat always stood."

"And still stands now?"

"Now it is rather too late to speak of threats." Wienis had cast a rapid glance at the clock on his desk. "Look here, Hardin, you were on Anacreon once before. You were young then; we were both young. But even then we had entirely different ways of looking at things. You're what they call a man of peace, aren't you?"

"I suppose I am. At least, I consider violence an uneconomical way of attaining an end. There

are always better substitutes, though they may sometimes be a little less direct."

"Yes. I've heard of your famous remark: 'Violence is the last refuge of the incompetent.' And yet"—the regent scratched one ear gently in affected abstraction—"I wouldn't call myself exactly incompetent."

Hardin nodded politely and said nothing.

"And in spite of that," Wienis continued, "I have always believed in direct action. I have believed in carving a straight path to my objective and following that path. I have accomplished much that way, and fully expect to accomplish still more."

"I know," interrupted Hardin. "I believe you are carving a path such as you describe for yourself and your children that leads directly to the throne, considering the late unfortunate death of the king's father—your elder brother—and the king's own precarious state of health. He is in a precarious state of health, is he not?"

Wienis frowned at the shot, and his voice grew harder. "You might find it advisable, Hardin, to avoid certain subjects. You may consider yourself privileged as mayor of Terminus to make . . . uh . . . injudicious remarks, but if you do, please disabuse yourself of the notion. I am not one to be frightened at words. It has been my philosophy of life that difficulties vanish when faced boldly, and I have never turned my back upon one yet."

"I don't doubt that. Which particular difficulty are you refusing to turn your back upon at the present moment?"

"The difficulty, Hardin, of persuading the Foundation to co-operate. Your policy of peace, you see, has led you into making several very serious mistakes, simply because you underestimated the boldness of your adversary. Not everyone is as afraid of direct action as you are."

"For instance?" suggested Hardin.

"For instance, you came to Anacreon alone and accompanied me to my chambers alone."

Hardin looked about him. "And what is wrong with that?"

"Nothing," said the regent, "except that outside this room are five palace guards, well armed and ready to shoot. I don't think you can leave, Hardin."

The mayor's eyebrows lifted, "I have no immediate desire to leave. Do you then fear me so much?"

"I don't fear you at all. But this may serve to impress you with my determination. Shall we call it a gesture?"

"Call it what you please," said Hardin, indifferently. "I shall not discommode myself over the incident, whatever you choose to call it."

"I'm sure that attitude will change with time. But you have made another error, Hardin, a more

serious one. It seems that the planet Terminus is almost wholly undefended."

"Naturally. What have we to fear? We threaten no one's interest and serve all alike."

"And while remaining helpless," Wienis went on, "you kindly helped us arm ourselves, aiding us particularly in the development of a navy of our own, a great navy. In fact, a navy which, since your donation of the Imperial cruiser, is quite irresistible."

"Your highness, you are wasting time." Hardin made as if to rise from his seat. "If you mean to declare war, and are informing me of the fact, you will allow me to communicate with my government at once."

"Sit down, Hardin. I am not declaring war, and you are not communicating with your government at all. When the war is fought—not declared, Hardin, *fought*—the Foundation will be informed of it in due time by the atom blasts of the Anacreonian navy under the lead of my own son upon the flagship, *Wienis*, once a cruiser of the Imperial navy."

Hardin frowned. "When will all this happen?"

"If you're really interested, the ships of the fleet left Anacreon exactly fifty minutes ago, at eleven, and the first shot will be fired as soon as they sight Terminus, which should be at noon tomorrow. You may consider yourself a prisoner of war."

"That's exactly what I do consider myself, your highness," said Hardin, still frowning, "but I'm disappointed."

Wienis chuckled contemptuously. "Is that all?"

"Yes. I had thought that the moment of coronation—midnight, you know—would be the logical time to set the fleet in motion. Evidently, you wanted to start the war while you were still regent. It would have been more dramatic the other way."

The regent stared. "What in space are you talking about?"

"Don't you understand?" said Hardin, softly. "I had set my counterstroke for midnight."

Wienis started from his chair. "You are not bluffing me. There is no counterstroke. If you are counting on the support of the other kingdoms, forget it. Their navies, combined, are no match for ours."

"I know that. I don't intend firing a shot. It is simply that the word went out a week ago that at midnight tonight, the planet Anacreon goes under the interdict."

"The interdict?"

"Yes. If you don't understand, I might explain that every priest in Anacreon is going on strike, unless I countermand the order. But I can't while I'm being held incommunicado; nor do I wish to even if I weren't." He leaned forward and added, with sudden animation, "Do you realize,

your highness, that an attack on the Foundation is nothing short of sacrilege of the highest order?"

Wienis was groping visibly for self-control. "Give me none of that, Hardin. Save it for the mob."

"My dear Wienis, whoever do you think I am saving it for. I imagine that for the last half-hour every temple on Anacreon has been the center of a mob listening to a priest exhorting them upon that very subject. There's not a man or woman on Anacreon that doesn't know that their government has launched a vicious, unprovoked attack upon the center of their religion. But it lacks only four minutes of midnight now. You'd better go down to the ballroom to watch events. I'll be safe here with five guards outside the door." He leaned back in his chair, helped himself to another glass of Locris wine, and gazed at the ceiling with perfect indifference.

Wienis blistered the air with a muffled oath and rushed out of the room.

A hush had fallen over the elite in the ballroom, as a broad path was cleared for the throne. Lepold sat on it now, hands solidly on its arms, head high, face frozen. The huge chandeliers had dimmed and in the diffused multicolored light from the tiny Atomo bulbs that bespangled the vaulted ceiling, the royal aura shone out bravely, lifting high above his head to form a blazing coronet.

Wienis paused on the stairway. No one saw him; all eyes were on the throne. He clenched his fists and remained where he was; Hardin would not bluff him into silly action.

And then the throne stirred. Noiselessly, it lifted upward—and drifted. Off the dais, slowly down the steps, and then horizontally, six inches off the floor, it worked itself toward the huge, open window.

At the sound of the deep-toned bell that signified midnight, it stopped before the window—and the king's aura died.

For a frozen split second, the king did not move, face twisted in surprise, without an aura, merely human; and then the throne wobbled and fell the six inches to the floor with a crashing thump, just as every light in the palace went out.

Through the shrieking din and confusion, Wienis' bull voice sounded. "Get the flares! Get the flares!"

He buffeted right and left through the crowd and forced his way to the door. From without, palace guards had streamed into the darkness.

Somehow the flares were brought back to the ballroom; flares that were to have been used in the gigantic torchlight procession through the streets of the city after the coronation.

Back to the ballroom guardsmen swarmed with torches—blue, green, and red; where the strange light lit up frightened, confused faces.

"There is no harm done," shouted Wienis. "Keep your places. Power will return in a moment."

He turned to the captain of the guard who stood stiffly at attention. "What is it, captain?"

"Your highness," was the instant response, "the palace is surrounded by the people of the city."

"What do they want?" snarled Wienis.

"A priest is at the head. He has been identified as High Priest Poly Verisof. He demands the immediate release of Mayor Salvor Hardin and cessation of the war against the Foundation." The report was made in the expressionless tones of an officer, but his eyes shifted uneasily.

Wienis cried, "If any of the rabble attempt to pass the palace gates, blast them out of existence. For the moment, nothing more. Let them howl! There will be an accounting tomorrow."

The torches had been distributed now, and the ballroom was again alight. Wienis rushed to the throne, still standing by the window, and dragged the stricken, wax-faced Lepold to his feet.

"Come with me." He cast one look out the window. The city was pitch-black. From below there were the hoarse confused cries of the mob. Only toward the right, where the Argolid Temple stood was there illumination. He swore angrily, and dragged the king away.

Wienis burst into his chambers, the five guardsmen at his heels. Lepold followed, wide-eyed, scared speechless.

"Hardin," said Wienis, huskily, "you are playing with forces too great for you."

The mayor ignored the speaker. In the pearly light of the pocket Atomo bulb at his side, he remained quietly seated, a slightly ironic smile on his face.

"Good morning, your majesty," he said to Lepold. "I congratulate you on your coronation."

"Hardin," cried Wienis again, "order your priests back to their jobs."

Hardin looked up coolly. "Order them yourself, Wienis, and see who is playing with forces too great for whom. Right now, there's not a wheel turning in Anacreon. There's not a light burning, except in the temples. There's not a drop of water running, except in the temples. On the wintry half of the planet, there's not a calorie of heat, except in the temples. The hospitals are taking in no more patients. The power plants have shut down. All ships are grounded. If you don't like it, Wienis, you can order the priests back to their jobs. I don't wish to."

"By Space, Hardin, I will. If it's to be a show-down, so be it. We'll see if your priests can withstand the army. Tonight, every temple on the planet will be put under army supervision."

"Very good, but how are you going to give the orders? Every line of communication on the planet is shut down. You'll find that radio won't

work and the televisors won't work and the ultrawave won't work. In fact, the only communicator on the planet that will work—outside of the temples, of course—is the televisor right here in this room, and I've fitted it only for reception."

Wienis struggled vainly for breath, and Hardin continued, "If you wish you can order your army into the Argolid Temple just outside the palace and then use the ultrawave sets there to contact other portions of the planet. But if you do that, I'm afraid the army contingent will be cut to pieces by the mob, and then what will protect your palace, Wienis? And your *lives*, Wienis?"

Wienis said thickly, "We can hold out, devil. We'll last the day. Let the mob howl and let the power die, but we'll hold out. And when the news comes back that the Foundation has been taken, your precious mob will find upon what vacuum their religion has been built, and they'll desert your priests and turn against them. I give you until noon tomorrow, Hardin, because you can stop the power on Anacreon but *you can't stop my fleet*." His voice croaked exultantly. "They're on their way, Hardin, with the great cruiser you yourself ordered repaired, at the head."

Hardin replied lightly. "Yes, the cruiser I myself ordered repaired—but in my own way. Tell me, Wienis, have you ever heard of an ultrawave relay? No, I see you haven't. Well, in about two minutes you'll find out what one can do."

The televisor flashed to life as he spoke, and he amended, "No, in two seconds. Sit down, Wienis, and listen."

VII.

Theo Aporat was one of the very highest ranking priests of Anacreon. From the standpoint of precedence alone, he deserved his appointment as head priest-attendant upon the flagship *Wienis*.

But it was not only rank or precedence. He *knew* the ship. He had worked directly under the holy men from the Foundation itself in repairing the ship. He had gone over the motors under their orders. He had rewired the 'visors; revamped the communications system; replated the punctured hull; reinforced the beams. He had even been permitted to help while the wise men of the Foundation had installed a device so holy it had never been placed in any previous ship, but had been reserved only for this magnificent colossus of a vessel—the ultrawave relay.

It was no wonder that he felt heartsick over the purposes to which the glorious ship was perverted. He had never wanted to believe what Verisof had told him—that the ship was to be used for appalling wickedness; that its guns were to be turned on the great Foundation. Turned on that Foundation, where he had been trained as a youth, from which all blessedness was derived.

Yet he could not doubt now, after what the admiral had told him.

How could the king, divinely blessed, allow this abominable act? Or was it the king? Was it not, perhaps, an action of the accursed regent, Wienis, without the knowledge of the king at all. And it was the son of this same Wienis that was the admiral who five minutes before had told him:

"Attend to your souls and your blessings, priest. I will attend to my ship."

Aporat smiled crookedly. He would attend to his souls and his blessings—and also to his cursings; and Prince Lefkin would whine soon enough.

He had entered the general communications room now. His acolyte preceded him and the two officers in charge made no move to interfere. The head priest-attendant had the right of free entry anywhere on the ship.

"Close the door," Aporat ordered, and looked at the chronometer. It lacked five minutes of twelve. He had timed it well.

With quick practiced motions, he moved the little levers that opened all communications, so that every part of the two-mile-long ship was within reach of his voice and his image.

"Soldiers of the royal flagship *Wienis*, attend! It is your priest-attendant that speaks!" The sound of his voice reverberated, he knew, from the stern atom blast in the extreme rear to the navigation tables in the prow.

"Your ship," he cried, "is engaged in sacrilege. Without your knowledge, it is performing such an act will doom the soul of every man among you to the eternal frigidity of space! Listen! It is the intention of your commander to take this ship to the Foundation and there to bombard that source of all blessings into submission to his sinful will. And since that is his intention, I, in the name of the Galactic Spirit, remove him from his command, for there is no command where the blessing of the Galactic Spirit has been withdrawn. The divine king himself may not maintain his kingship without the consent of the Spirit."

His voice took on a deeper tone, while the acolyte listened with veneration and the two soldiers with mounting fear. "And because this ship is upon such a devil's errand, the blessing of the Spirit is removed from it as well."

He lifted his arms solemnly, and before a thousand televisors throughout the ship, soldiers cowered, as the stately image of their priest-attendant spoke:

"In the name of the Galactic Spirit and of his prophet, Hari Seldon, and of his interpreters, the holy men of the Foundation, I curse this ship. Let the televisors of this ship, which are its eyes, become blind. Let its grapples, which are its arms, be paralyzed. Let the atom blasts, which are its fists, lose their function. Let the motors, which

is its heart, cease to beat. Let the communications, which is its voice, become dumb. Let its ventilations, which is its breath, fade. Let its lights, which is its soul, shrivel into nothing. In the name of the Galactic Spirit, I so curse this ship."

And with his last word, at the stroke of midnight, a hand, light-years distant in the Argolid Temple, opened an ultrawave relay, which at the instantaneous speed of the ultrawave, opened another on the flagship *Wienis*.

And the ship died!

For it is the chief characteristic of the religion of science, that it works, and that such curses as that of Aporat's are really deadly.

Aporat saw the darkness close down on the ship and heard the sudden ceasing of the soft, distant purring of the hyperatomic motors. He exulted and from the pocket of his long robe withdrew a self-powered Atomo bulb that filled the room with pearly light.

He looked down at the two soldiers who, brave men though they undoubtedly were, writhed on their knees in the last extremity of mortal terror. "Save our souls, your reverence. We are poor men, ignorant of the crimes of our leaders," one whimpered.

"Follow," said Aporat, sternly. "Your soul is not yet lost."

The ship was a turmoil of darkness in which fear was so thick and palpable, it was all but a miasmic smell. Soldiers crowded close wherever Aporat and his circle of light passed, striving to touch the hem of his robe, pleading for the tiniest scrap of mercy.

And always his answer was, "Follow me!"

He found Prince Lefkin, groping his way through the officers' quarters, cursing loudly for lights. The admiral stared at the priest-attendant with hating eyes.

"There you are!" Lefkin inherited his blue eyes from his mother, but there was that about the hook in his nose and the squint in his eye that marked him as the son of *Wienis*. "What is the meaning of your treasonable actions? Return the power to the ship. I am commander here."

"No longer," said Aporat, somberly.

Lefkin looked about wildly. "Seize that man. Arrest him, or, by Space, I will send every man within reach of my voice out the air lock in the nude." He paused, and then shrieked, "It is your admiral that orders. Arrest him."

Then, as he lost his head entirely, "Are you allowing yourselves to be fooled by this mountebank, this harlequin? Do you cringe before a religion compounded of clouds and moonbeams? This man is an impostor and the Galactic Spirit he speaks of a fraud of the imagination devised to—"

Aporat interrupted furiously. "Seize the blas-

phemer. You listen to him at the peril of your souls."

And promptly, the noble admiral went down under the clutching hands of a score of soldiers.

"Take him with you and follow me."

Aporat turned, and with Lefkin dragged along after him, and the corridors behind black with soldiery, he returned to the communications room. There, he ordered the ex-commander before the one televisior that worked.

"Order the rest of the fleet to cease course and to prepare for the return to Anacreon."

The disheveled Lefkin, bleeding, beaten, and half stunned, did so.

"And now," continued Aporat, grimly, "we are in contact with Anacreon on the ultrawave beam. Speak as I order you."

Lefkin made a gesture of negation, and the mob in the room, and the others crowding the corridor beyond, growled fearfully.

"Speak!" said Aporat. "Begin: The Anacreonian navy—"

Lefkin began.

VIII.

There was absolute silence in *Wienis*' chambers when the image of Prince Lefkin appeared at the televisior. There had been one startled gasp from the regent at the haggard face and shredded uniform of his son, and then he collapsed into a chair, face contorted with surprise and apprehension.

Hardin listened stolidly, hands clasped lightly in his lap, while the just-crowned King Lepold sat shriveled in the most shadowy corner, biting spasmodically at his gold-braided sleeve. Even the soldiers had lost the emotionless stare that is the prerogative of the military, and, from where they lined up against the door, atom blasts ready, peered furtively at the figure upon the televisior.

Lefkin spoke, reluctantly, with a tired voice that paused at intervals as though he were being prompted—and not gently:

"The Anacreonian navy . . . aware of the nature of its mission . . . and refusing to be a party . . . to abominable sacrilege . . . is returning to Anacreon . . . with the following ultimatum issued . . . to those blaspheming sinners . . . who would dare to use profane force . . . against the Foundation . . . source of all blessings . . . and against the Galactic Spirit. Cease at once all war against . . . the true faith . . . and guarantee in a manner suiting us of the navy . . . as represented by our . . . priest-attendant, Theo Aporat . . . that such war will never in the future . . . be resumed, and that"—here a long pause, and then continuing—"and that the one-time prince regent, *Wienis* . . . be imprisoned . . . and tried before an ecclesiastical court . . . for his crimes. Otherwise the royal navy . . . upon returning to Anacreon . . . will blast

the palace to the ground . . . and take whatever other measures . . . are necessary . . . to destroy the nest of sinners . . . and the den of destroyers . . . of men's souls that now prevail."

The voice ended with half a sob and the screen went blank.

Hardin's fingers passed rapidly over the Atomo bulb and its light faded until in the dimness, the hitherto regent, the king, and the soldiers were hazy-edged shadows; and for the first time it could be seen that an aura encompassed Hardin.

It was not the blazing light that was the prerogative of kings, but one less spectacular, less impressive, and yet one more effective in its own way, and more useful.

Hardin's voice was softly ironic as he addressed the same Wienis who had one hour earlier declared him a prisoner of war and Terminus on the point of destruction, and who now was a huddled shadow, broken and silent.

"There is an old fable," said Hardin, "as old perhaps as humanity, for the oldest records containing it are merely copies of other records still older, that might interest you. It runs as follows:

"A horse having a wolf as a powerful and dangerous enemy lived in constant fear of his life. Being driven to desperation, it occurred to him to seek a strong ally. Whereupon he approached a man, and offered an alliance, pointing out that the wolf was likewise an enemy of the man. The man accepted the partnership at once and offered to kill the wolf immediately, if his new partner would only co-operate by placing his greater speed at the man's disposal. The horse was willing, and allowed the man to place bridle and saddle upon him. The man mounted, hunted down the wolf, and killed him.

"The horse, joyful and relieved, thanked the man, and said: 'Now that our enemy is dead, remove your bridle and saddle and restore my freedom.'

"Whereupon the man laughed loudly and replied, 'The hell you say. Giddy-up, Dobbin,' and applied the spurs with a will."

Silence still. The shadow that was Wienis did not stir.

Hardin continued quietly, "You see the analogy, I hope. In their anxiety to cement forever total domination over their own people, the kings of the Four Kingdoms accepted the religion of science that made them divine; and that same religion of science was their bridle and saddle, for it placed the life blood of atomic power in the hands of the priesthood—who took their orders from us, be it noted, and not from you. You killed the wolf, but could not get rid of the m—"

Wienis sprang to his feet and in the shadows, his eyes were maddened hollows. His voice was thick, incoherent. "And yet I'll get you. You

won't escape. You'll rot. Let them blow us up. Let them blow everything up. *You'll* rot! I'll get you!

"Soldiers!" he thundered, hysterically. "Shoot me down that devil. Blast him! Blast him!"

Hardin turned about in his chair to face the soldiers and smiled. One aimed his atom blast and then lowered it. The others never budged. Salvor Hardin, mayor of Terminus, surrounded by that soft aura, smiling so confidently, and before whom all the power of Anacreon had crumbled to powder was too much for them, despite the orders of the shrieking maniac just beyond.

Wienis screamed a curse and staggered to the nearest soldier. Wildly, he wrested the atom blast from the man's hand—aimed it at Hardin, who didn't stir, shoved the lever and held it contacted.

The pale continuous beam impinged upon the force field that surrounded the mayor of Terminus and was sucked harmlessly to neutralization. Wienis pressed harder and laughed tearingly.

Hardin still smiled and his force-field aura scarcely brightened as it absorbed the energies of the atom blast. From his corner, Lepold covered his eyes and moaned.

And, with a yell of despair, Wienis changed his aim and shot again—and toppled to the floor with his head blown into nothingness.

Hardin winced at the sight and muttered, "A man of 'direct action' to the end. The last refuge!"

IX.

The Time Vault was filled; filled far beyond the available seating capacity, and men lined the back of the room, three deep.

Salvor Hardin compared this large company with the few men attending the first appearance of Hari Seldon, thirty years earlier. There had only been six, then; the five old Encyclopedists—all dead now—and himself, the young figurehead of a mayor. It had been on that day, that he, with Yohan Lee's assistance had removed the "figurehead" stigma from his office.

It was quite different now; different in every respect. Every man of the City Council was awaiting Seldon's appearance. He, himself, was still mayor, but all-powerful now; and since the utter rout of Anacreon, all-popular. When he had returned from Anacreon with the news of the death of Wienis, and the new treaty signed with the trembling Lepold, he was greeted with a vote of confidence of shrieking unanimity. When this was followed in rapid order, by similar treaties signed with each of the other three kingdoms—treaties that gave the Foundation powers such as would forever prevent any attempts at attack similar to that of Anacreon's—torchlight processions had been held in every city street of Terminus.

Not even Hari Seldon's name had been more loudly cheered.

Hardin's lips twitched. Such popularity had been his after the first crisis also.

Across the room, Sef Sermak and Lewis Bort were engaged in animated discussion, and recent events seemed to have put them out not at all. They had joined in the vote of confidence; made speeches in which they publicly admitted that they had been in the wrong, apologized handsomely for the use of certain phrases in earlier debates, excused themselves delicately by declaring they had merely followed the dictates of their judgment and their conscience—and immediately launched a new Actionist campaign.

Yohan Lee touched Hardin's sleeve and pointed significantly to his watch.

Hardin looked up. "Hello there, Lee. Are you still sour? What's wrong now?"

"He's due in five minutes, isn't he?"

"I presume so. He appeared at noon last time."

"What if he doesn't?"

"Are you going to wear me down with your worries all your life? If he doesn't, he won't."

Lee frowned and shook his head slowly. "If this thing flops, we're in another mess. Without Seldon's backing for what we've done, Sermak will be free to start all over. He wants outright annexation of the Four Kingdoms, and immediate expansion of the Foundation—by force, if necessary. He's begun his campaign, already."

"I know. A fire eater must eat fire even if he has to kindle it himself. And you, Lee, have got to worry even if you must kill yourself to invent something to worry about."

Lee would have answered, but he lost his breath at just that moment—as the lights yellowed and went dim. He raised his arm to point to the glass cubicle that dominated half the room and then collapsed into a chair with a windy sigh.

Hardin himself straightened at the sight of the figure that now filled the cubicle—a figure in a wheel chair! He alone, of all those present could remember the day, decades ago, when that figure had appeared first. He had been young then, and the figure old. Since then, the figure had not aged a day, but he himself had in turn grown old.

The figure stared straight ahead, hands fingering a book in its lap.

It said, "I am Hari Seldon!" The voice was old and soft.

There was a breathless silence in the room and Hari Seldon continued conversationally, "This is the second time I've been here. Of course, I don't know if any of you were here the first time. In fact, I have no way of telling, by sense perception, that there is anyone here at all, but that doesn't matter. If the second crisis has been overcome safely, you are bound to be here; there is no way

out. If you are not here, then the second crisis has been too much for you."

He smiled engagingly. "I doubt *that*, however, for my figures show a nine-eight point four percent probability there are no significant deviations from the Plan in the first eighty years.

"According to our calculations, you have now reached domination of the barbarian kingdoms immediately surrounding the Foundation. Just as in the first crisis you held them off by the use of the Balance of Power, so in the second, you gained mastery by use of the Spiritual Power as against the Temporal.

"However, I might warn you here against overconfidence. It is not my way to grant you any foreknowledge in these recordings, but it would be safe to indicate that what you have now achieved is merely a new balance—though one in which your position is considerably better. The Spiritual Power, while sufficient to ward off attacks of the Temporal is *not* sufficient to attack in turn, because of the invariable growth of the counteracting force known as Regionalism, or Nationalism, as it should be called now that the Empire has died here in the Periphery. Against Nationalism, the Spiritual Power cannot prevail. I am telling you nothing new, I'm sure.

"You must pardon me, by the way, for speaking to you in this vague way. The terms I use are at best mere approximations, but none of you are qualified to understand the true symbology of Psycho-History, and so I must do the best I can.

"In any case, the Foundation is only at the start of the Path that leads to new Empire. The neighboring kingdoms, in manpower and resources are still overwhelmingly powerful as compared to yourselves. Outside them lies the vast tangled jungle of barbarism that extends around the entire breadth of the Galaxy. Within that rim, there is still what is left of the Galactic Empire—and that, weakened and decaying though it is, is still incomparably mighty."

At this point, Hari Seldon lifted his book and opened it. His face grew solemn. "And never forget that there was *another* Foundation established eighty years ago; a Foundation at the other end of the Galaxy, at Star's End. They will always be there for consideration. Gentlemen, nine hundred and twenty years of the Plan stretch ahead of you. The problem is yours! Go to it!"

He dropped his eyes to his book and flicked out of existence, while the lights brightened to fullness. In the babble that followed, Lee leaned over to Hardin's ear. "He didn't say when he'd be back."

Hardin replied, "I know—but I *trust* that he won't return until you and I are safely and cozily dead!"

THE END.



THE SLAVER

By L. Ron Hubbard

● He had always been convinced of his superiority simply because he inherited his position. But it took the slavers' ship to show him that a man isn't superior by birth alone—

Illustrated by Kramer

Voris Shapadin heard the shot and lurched back in his chair in surprise, staring at the port and holding the leg of a chicken halfway between table and beard.

Somewhere in the *Gaffgon* footsteps pounded toward a gun. The insect-stained face of the in-

tership communicator panel lit and the scarred visage of the navigator flickered there.

"Party returning to the ship, sir."

Voris yanked the napkin from his fat neck and snatched up the rusty helmet which he wore in preference to a peaked cap. The helmet had ray

burns on it and the strap was rotted half through with sweat; it made Voris feel important because it was an officer's field helmet and he had never been higher than a feldcapal in the Outer War. When he stood up, bits of food rolled off his lap, bouncing from bulge to bulge and finally to the decayed spring carpet.

Voris took his boltgun and holster from the fever-flattened servant and went up the treacherously greasy ladder to the bridge.

Another shot racketed through the half-open dodger, and Voris prodded his way between his navigator and a quartermaster to a point of vantage in the wing.

"What the scatterbrained hell is that all about out there?" demanded Voris without turning to his navigator.

"I dunno, sir. Doesn't sound like our guns." The navigator ventured this with timidity, although he was not timid in appearance. He had on a sweater striped horizontally and striped again with liquor stains, and over this he wore a jacket of battered green and threadbare lace; there were two ray scorches on the jacket. The navigator's face was misshapen on one side where flame had left a ghastly splotch and had put out his eye. He wore no patch nor glass orb and left the socket dark and empty. He eyed his captain's back with respect prompted by an evil man's recognition of an even blacker personality.

Noisily, Voris sucked the shreds of chicken out of his spraddled teeth and spat the fragments over the side of the dodger. He wiped his mouth with a grease-slicked cuff and ranged his tiny white eyes over the scenery in growing impatience.

The *Gaffgon* was landed in a field of half-matured corn now cooked by the retarding blasts which had eased the old hulk down. She was a dreary pile of corrosion, the *Gaffgon*, for her propulsion was accomplished with the old vent principle, and the small jets which made her look like a scaled monster had also made her filthy with farillium soot. She presented a bad comparison with the cleanliness of this rural countryside.

A thick fringe of elms stood about this hilltop cornfield and barred much of the rolling country from view. The top of a steeple showed white and clean out of the valley, and a white road curved over the checkerboard horizon.

Voris Shapadin disliked this world intensely for its flatness, for he had been raised amid craggy peaks and ice rivers on Lurga, and the monotony of the present scenery combined with its heat to scratch his nerves.

He could hear men threshing about behind the screen of trees and knew from their far-off shouts that something was going wrong. It was very unusual to find any resistance in this place, and that alone had been its appeal, for one got his

belly full of fighting in the outer lanes of Lurga, and men who could be trusted were too scarce to be risked in stupid skirmishes with stupid natives.

There was a sudden movement of shrubs and a small being burst out into the corn and ran several exhausted steps before he saw that he was heading for the *Gaffgon*. The footing was treacherous, and when he sought to halt in midrace he fell, flinging a black object away from him.

"Hold!" yelled a guard at the gangway. "Hold, there!"

The small being flipped to his feet and scooped up the black object. Voris could not make out the identity of the thing, but he felt it was a weapon of some sort.

A squad was running out through the corn from the *Gaffgon*, and sailors had broken from the trees to spread out and converge upon their quarry. The small being was trapped, but his attitude was one of frenzied defiance. He was doing something to the black object.

The two groups made a circle around him some thirty yards wide. The small being stood still for a moment and pointed at a sailor with the black object. There was a stab of thunder, and the sailor was thrown back in a jackknife.

"Shoot him!" howled Voris from his bridge. "Shoot the pig!"

A sailor had the small being from behind, but there was a blur of action and another crash of thunder, and the sailor already dead was dropped to earth. The small being tried madly to get away from the others. No one could fire at him, so thick was the press. And then, by crushing him to earth and beating at his head with gun butts, the sailors at last had him.

"The fools!" said Voris. "Two men dead! Maybe more! Is that worth the price of one man? He'll bring less than twenty weights in the market, and two sailors— Vash! Wait until we get him aboard and in irons!"

Voris hastened down the ladder to the gangway to await the arrival of the group.

From another part of the fringe of trees a line of people was emerging, silent save for the clank of chains. To these, the bulk of his cargo, Voris gave no heed, for the sight was common enough to him.

The sailors, carrying their single captive, leaving their dead where they had fallen, reached the bottom of the gangway. Their faces were scarlet with exertion and their ragged white uniforms sodden with sweat. The bos'n in the lead halted when he saw Voris, and realized for the first time that the group was liable to punishment for having conducted the matter so badly. The bos'n squared his thick shoulders and put a blank expression upon his bearded face. He continued on up the gangway and gave Voris a doubtful salute.

Voris said nothing. He waited until the others

had come into the ship and had thrown amid the refuse of the deck their hard-won game.

The captive was young, and though he was bloodied by the gun butts, he was seen to be of regular features. His body was slender, which was not a good sign, for he would not be able to stand up under a great deal of hard labor. He was blond. He was an aristocrat. He was, Voris decided instantly, no good whatever.

Voris started to speak, and then found that he had no words equal to this. He ranged his white eyes from face to face and cursed them all with a silence which was far more horrible than verbal blasts.

With a jerk of his head, dismissing the men into the ship, Voris swept them with the blackness of his contempt. Then he kicked the captive in the side with a heavy space boot, and when the man did not stir, kicked him in the face. The captive lay as one dead.

The silent column was now coming up the gangway, and Voris, with a final kick, stepped back to survey them.

There were about a hundred and fifty people in the line. About a quarter of them were women. These last had been selected for form and face, and though they were tear-stained and bedraggled now, they would bring a good-enough price on Lurga. The rest were men in their twenties and thirties, most of them sullen, some of them beaten, none of them defiant. They were laborers and mechanics possessing toil-hardened hands and wind-darkened faces, selected because of strength or possible deftness with material.

One by one the chained captives stepped over the young man on the deck. A face here and there lighted for an instant in startled recognition, and then instantly went blank, as though afraid to be found knowing this one who had obviously put up a battle.

Only one face in all that line contained any fire. Her eyes were an astonishing shade of blue, and her face and body contained strength as well as beauty. Her cheek was bruised where she had been struck, and the cotton garment was ripped away from her shoulder so that she had to hold it in place. When she saw Voris her ripe mouth curved down on one side and her attitude hardened into contempt. She was on the point of spitting at the commander when the presence of the young man on the floor caught her attention. She paused, startled, only to be yanked forward by the chain which connected her to the next captive. She was very careful not to step on the man, and then shot Voris a glare which was of withering violence.

Voris was suddenly cheerful. He momentarily forgot his loss of men. He looked after the woman and laughed quietly.

So amused was Voris Shapadin that he showed only slight annoyance to the spotting agent who came a few minutes later to collect his reward.

Deep in the reeking hold of the *Gaffgon*, where darkness and misery and stench caught in the throat to strangle, Kree Lorin of Falcon's Nest came slowly to his senses and struggled to rise. But chains clanked to jeer his effort and pulled him down again. Stupidly he felt for his knife, then fumbled on the floor about him for his gun. The loss of the two served to speed returning sensibility.

He stared through the dimness and caught a hazy impression of the hold, of two tiers of captives, people felt rather than seen, for the only light came from three blue bulbs studding the upper bulkhead.

Here were at least three hundred human beings reduced to the last depths of degradation and despair, reduced even below the point of whimpering, as though they recognized already the finality of their fate, as though they knew that only two thirds of them would reach Lurga alive and that half of those who remained would sweat out their lives in the factories and on the fields of that planet in the first two years of their captivity.

Kree Lorin's head felt as though a grenade had burst in it. He was a dull stupidity floating above the red blur of pain which was his body. Searchingly he sought to piece together the why of his presence, but the facts were too final and damning to be reached. He could not believe that he was here.

In a little while he would get up and go home. He would dismount before the big gray gates of the stronghold and pass his reins into the hands of a groom and, grasping the partridges he had shot, would saunter across the court and into the big dining hall, where his father would meet him with a proud and stern face which yet could not hide gleaming fondness.

His homecoming would be a little unusual this time, for he would be twenty-one on the morrow, and there was preparation for a celebration to welcome him into manhood.

A lackey would strip off his spurs, would take the birds and gun. Another would appear with a tray of wine and sweetbread. And then he would relate to his father the chances of the hunt—

A captive screamed in the fetid gloom. Kree Lorin raised his head and stared, and all the dismal weight of this obscene place crushed its way into his heart. Suddenly he wanted to scream an answer back. He wanted to call the guards and batter them with his chains. He could not be here. He, Kree Lorin of Falcon's Nest could never be a slave!

So this was what it meant. To be robbed of hope forever. To be chained and herded against humanity in the airless dark of a spaceship hull. To be carried to some terrifying far place and there be sold among enemies!

He, Kree Lorin was a soldier! His father had fought in those last devastating wars. He himself had been trained to the rifle and grenade. And in anticipation of yet other battles and revolts, he had been made to study the tongue of the Lurga Empire, the structure of spaceships, the rudiments of that vast complexity which was military and mechanical science in the year of Defeat Thirty-nine.

Once Earth had had its fleets to scourge the blackness of outer space. Once Earth had been a proud mistress of great empire, not a vassal planet led willfully into decay by the conquerors. He, Kree Lorin, had been brought up a soldier against the day of revolt—

The sultry gloom gagged him and he moaned. There was a stir at his left and he choked off the sound, for it was deeply bred into him never to show weakness.

"You are Kree Lorin," said a dim blur which was a face beside him. There was a jarring note of amusement in the tone.

Kree looked fixedly at the white blur, and gradually traced its features. He felt no recognition clearly, but only that he should know this girl.

"Kree Lorin," she said, "in the hold of a slaver!" It was nearly laughter.

He hitched himself up on his elbow and stared at her, and gradually the mists in his mind cleared away. He knew her now. The peasant girl of Palmerton. The peasant girl he had seized off the dusty road, lifting her saddle-high to attempt a kiss upon her lovely mouth. His own cheek stung for an instant in memory.

Yes, this was she, Dana of Palmerton, whom he had afterward tried to bring to Falcon's Nest by bribing her slut of a mother. Dana of Palmerton, who would rather live in a corn crib a free woman than a pampered slavey in mighty Falcon's Nest!

"They got you, too?" he muttered, feeling that it was a stupid remark.

"Me. I was made for a slave. But Kree Lorin, the young hawk of Falcon's Nest—" She laughed.

He wanted to strike her, but the thought of the effort robbed him of what strength he had, and he sank down to the slippery filth of the metal deck.

Evidently she was but lightly chained, for she moved to his side. With rough but efficient hands she turned him over and untangled his irons. She tore a strip from her dress and dampened it in her water cup to bathe away the blood and grime which lay so thickly on him.

She worked silently, taking other strips from

her clothing for bandages. There was a detached disdain in her which roughened his nerves; but the coolness she brought his hurts made him bear her attitude in silence.

When she had finished she did not move away, but remained there, looking at him, and he turned his face from her to become even more conscious of her regard.

There was a shock in the ship, and Kree felt his weight double, then treble. There was a vibrating roar which grew in volume and crescendo, and then faded slowly. His weight did not lessen, and for the first time he knew the sensation of flight. He felt a little afraid, and turned back to find that Dana's eyes were still on him. He wanted to give her some sharp rebuke, but somehow everything had changed.

He, Kree Lorin of Falcon's Nest, had been accustomed to obedience from the people of the province. Just how or why he had never bothered to reason. He had not questioned his right until now that he was robbed of it. She, Dana of Palmerton, had a better command of the situation than he. She was, therefore, higher, somehow, than he. She, suddenly, was the superior being.

Puzzled, he looked at her for a long while. And then, because the increased weight made him ache anew, he began to slowly lose his hold on clarity and relapse back into a fog of half-felt pain.

He muttered without belief, "I am Kree Lorin. Kree Lorin of Falcon's Nest." But the name sounded very far away and meaningless.

Hours blended and blurred and stretched themselves into a dismal chain of aching monotony wherein commingled the stench of the ship, the whimpering of the cargo, and all the gloomy suffering of silent men who knew that so many others had gone this way, never to return, and that the end of the voyage would only begin a more degrading phase.

Air was too precious to be changed. Water was too scarce to be wasted. And capsule food, a thing to which these people were not used, accelerated their enfeeblement. Such stress pressed down their perceptions, and they might have been a week in space or a year for all they could recall. At first they had sometimes talked, sometimes there had been an attempt at song. But now no talk and certainly no song could be found in them.

Voris Shapadin walked through this cargo hold once, a scented rag held up to his nostrils, and berated the guard for not perceiving that at least eight here were dying, would die before the voyage was over, and so should not be permitted to exhaust stores.

After Voris Shapadin had gone, four guards in masks came and removed the victims, striking one who was so tenacious of life even in the face of slavery that he complained wildly and even sought

to fight as he was borne away.

Kree Lorin lay still and watched with half-lidded eyes. He was too deadened by suffering to be much affected. He found himself faintly wishing that that had been meted to him. And so he was slightly amazed that the girl Dana should throw a pannikin at one of the guards who dragged at the protesting one.

She had paid little attention to Kree Lorin, as though she found him too despicable for notice. Dimly he understood that there is no state lower than that of one who has fallen from a height.

From Falcon's Nest had foraged out the Lorins to extract a sort of tax or tribute from the peasantry on the slight excuse that the presence of an armed body prevented an incursion by the people beyond the river. A rough sort of court was occasionally held whereat peasants could find justice of a sort. But though out of fear the Lorins were respected, no soldier was liked. "Soldier" was a word of contempt, had become so within the memory of these people when the legions and fleets of Earth had been battered into rubble. And now from Falcon's Nest had come forth a son as a slave, despised and bludgeoned and defeated by his captors, and even lower now had dropped any prestige Kree Lorin might have had.

Kree Lorin knew this. He knew a great many things out of books, out of the forest paths. He knew how easily men died. He himself had seen men die through the sights of his rifle. But for the first time he knew how easily he himself could die. Unlike these peasants he had known no filth, little suffering beyond the rigors of the chase. And he felt that that which was he had been defiled and smashed. Had he had the slightest hope he would also have found defiance. But he had no hope and he was ill. And it was no wonder, he thought vaguely, that she despised him.

They were gone, the guards and the eight who had been condemned. Voris Shapadin came back and flashed a light down the rows of prisoners while his sailors executed a swift search. A knife had been found upon a dying man and two knives were brought from concealment by this second inspection.

Voris Shapadin did not flatter Kree Lorin with any particular attention. In fact, he seemed to have forgotten that anything unusual had happened in the capture of this man. The sailors stirred Kree Lorin up and made a perfunctory examination of his ragged clothing, and the light in the commander's hand passed on to fix Dana in a dull-yellow glow.

The sailors grinned as they started to search her and she struck viciously, and the crack of her hand on the leathery jaw made Voris Shapadin chuckle.

"Leave her," he said. And the sailors passed to the next.

AST—3F

Kree Lorin lay where he was and thought fitfully about Dana. The light had shown her to him again after this endless period of darkness, and the startling blue of her angry eyes had recalled him to the fact that he had spent many weeks thinking about her back on Earth, and that he had tried very hard to somehow win her.

What might have been an hour, what might have been a day later, he awoke from a troubled dream and looked around him in the gloom. The odor of filth and death, the whimper of a captive bit into him sharply.

It was a startling thing to him, a thing which was incredible and defied explanation.

He raised himself on his elbow and looked down the long tunnel of the cargo hold and the three blue bulbs, and felt the peculiarly weightless sensation of flight.

Suddenly it seemed to Kree Lorin that a nightmare had turned real, for he had absolutely no explanation of his whereabouts, no memory of having arrived there, no idea of where he was going. He felt of the bandages which had swathed his head and pulled them off, wondering how he had been hurt.

The sensations which stirred in him lasted for perhaps a minute, and then, as one looks through a shadowy window, he recalled what had occurred. But why was all that so dull and all this so sharp?

Had he gone through an illness? Was he just now recovering from a fever of wounds?

What was different about his state today?

And then he knew. And knew why things were so sharp. And knew with an awful dread. For the chains of the bulkhead next to him were hanging empty.

He looked at the man on his right and prodded him. "What has happened to the woman who was chained here?"

Disinterestedly the slave grunted, "They came for her a while ago."

"When?"

"A while ago. What does it matter?" He buried his head in the crook of his arm and muttered, "What does anything matter?"

Kree Lorin thought of the sailors who had searched her, of the grin of the commander. And then instantly stopped his thoughts.

He rattled his chains and yanked at them, and for a moment felt something give. But the hope was false, for a kink had turned straight, and there was no freeing the great rings in the bulkhead. He rattled his chains, and the noise added to his anger. He banged them loudly against the plates and then began to double the noise and yell.

Here and there a slave took it up. The din grew. Kree Lorin raved and the slaves bellowed and screamed, glad to break the silence of this place.

The din continued for several minutes before any result was achieved, and then the door at the end of the hold opened and a guard came in a pool of light about his feet, his gun ready in hand.

"Stop!" cried the guard in Lurgese.

"Come and stop me!" roared Kree, for though his knowledge might not be perfect, he had been taught against some day of victory the tongue of the conqueror.

The guard called for support and then advanced down the center of the hold toward Kree. Two other guards followed him into the place.

"Your mothers were swine!" cried Kree. "Your children are dogs!"

The guard in the lead played his light upon the frenzied slave and noted the unnatural brilliance of eye and the grayness of the cheeks.

"Stop this noise!"

"Make me!" bellowed Kree. "I have the spacard! I know that I have it, and if I choose to die now instead of tomorrow— Shoot! You don't dare shoot! Your brothers are goats and you dine on filth! Shoot me!"

The guard faltered and looked uneasily at his companions. For it was very weird to hear an Earthman screaming Lurgese. And it was nothing for jest—spacard, the thing which had swept more than one ship into aimless orbits in space.

The trio became conscious of their hand weapons, and Kree, watching, knew that he was close to being shot. But instead, one of the guards drew away and came back shortly with a small Lurgan in a gold cap which bore the insignia of medicine.

The small doctor was holding a kerchief to his nose. His footing was uncertain, and he appeared to be drunk.

"Spacard, is it?" he said, his voice muffled in the kerchief. "Bring him outside and we'll know soon enough. Bah, what a pesthole!"

Kree, who had only wanted the guards within range of his swinging chain, had not hoped for this much. He subsided while a sailor put on a mask and approached him to unlock his irons from the ringbolts.

Making him walk at a safe distance before them and under their guns, they took him out into the passage and slammed the hold door. Even though the passage lights were not exceptionally bright, they were like dirks into Kree's eyes.

Prodded ahead and bumping into the bulkheads, so unsteady had he become during the passage, Kree was forced into a small room which reeked of antiseptics and alcohol. He caught a glimpse of himself in an instrument cabinet door and was repelled by his own appearance. Haggard and unshaven, filthy and ragged, he little resembled the Kree Lorin who had gone forth to the hunt such an infinite time ago.

The doctor reeled into a chair and looked fixedly at the captive. "Spacard, is it?" he hiccupped. "Lie down on that table."

Chains clanking, Kree stretched himself out on the cold metal. He knew that the sole reason for all this attention proceeded from the necessity of inoculating slaves and crew if it was proved that he did have spacard. A more vigilant doctor might have done the inoculation at the beginning of the voyage just for safety, but this was the *Gaffgon*, a derelict and slaver, not a transport or war vessel.

The sailors were afraid to approach Kree, but under the medico's insistence began to buckle his ankles down.

To them, Kree had appeared wild without purpose and weaving from weakness. They only feared the germs which he might carry. They did not envision the danger of those confining chains which looped down from his wrists. Not until there was a rattle and swish and the dull crunch of inburst bone. A sailor went down.

A gun came up and the wielder's face turned into a red spatter. The medico squealed and then fell, his hands plucking at his head in lessening strength. The third sailor would have run had he been between Kree and the door. He was not. His gun was smashed from his hand. The horror of the slave's appearance and the death which had struck the others numbed the remaining man's mind. He thought about his gun, but not soon enough. The chain caught him against the bulkhead, and for two or three seconds he stood there.

Kree was panting, but sustained by a fire of victory which physical exertion could not quench. There was raw hate in him, and he did not let the man who began to struggle on the floor come farther than one elbow before he crushed him down again.

They were dead, all of them. The white walls of the examination room were brightened. Kree took their keys and freed his wrists of the iron. He took their guns and girded them about his waist.

He entertained no great hopes, for such a ship would be forever on guard, but he made no incautious moves, for there was bred into him with the soldier the caution of the hunter. From the flagon on the wall he took a long drink, and the water was like life flowing through him. From the surgeon's cabinet he took a hidden store of condensed food. From a less marked sailor he took a jacket and a cap he picked up from under the table. He added a razor and soap to his loot and then stepped to the door.

The companionway was clear. He fumbled with the latch as he closed it, but his hands shook a little and he had no patience with the combina-

tion. Afraid that he would be found there if he stayed longer, he had to abandon his effort to lock the door, no matter the danger of premature discovery to which the contents of that room might lead.

The long passageway was naked and without side corridors. He came to its end and saw a ladder leading up. At the top of it stood a sailor, facing the other way and leaning against the supporting chains which held the hatch open.

Kree went up, catfooted. The butt of a pistol fell once and then twice. He tried to haul the body out of sight behind the hatch, but it was too large and one boot protruded. He did not dare linger there, and again was forced to leave a mark of his way behind.

This was a boat deck, and the spaceboats were in the bulges which jutted into the ship to preserve its streamline. Kree had had no practice with anything like these, and he had groaned, as a boy, over the insistence of old Colonel Stauckner that such things should be known. He had yawned then. Now he apprehensively studied the air lock and tried to recall the theory. Perhaps if he opened that thing while not in a space suit he would be ballooned into a thing of horror. He peered through the cloudy pane and saw the hooded spaceboat's interior. This was a thing he had to chance now, not afterward. He opened the lock. There was a swirl of air around him which eddied into quietness. The stale interior of the *Gaffgon* made the musty air of the spaceboat a welcome thing. He entered and shut the lock and scanned the gloom around him.

He was thankful that the *Gaffgon* was nearly as old as the texts from which Colonel Stauckner had attempted to give him a broad education. But even more than the texts, his own sense of logic helped him. In Lurgese most of the panel was named. To launch, it was evident that one closed the spaceboat's lock, reached through and threw the catch on the confining door and then blasted the small vessel against the door and out into space. It seemed simple enough. He hoped that he could do it. He was afraid he would not re-

member the outer catch and threw it now with some qualms. Nothing happened. He felt better.

Now that he knew where he was going and what he would do, he turned back to the lock, opened it and peered up and down the *Gaffgon's* upper passage. It was empty.

Dodging from bulge to bulge, he made his way forward. He nearly blundered into a sleeping compartment and then into another slave hold before he located the ladder which must lead up to the bridge.

Momentarily expecting to be stopped, he went up. Just as his eyes came on a level with the upper deck a gong began to clang, answered in deafening alarm by other gongs throughout the ship. Some one of his traces had been discovered!

He scrambled into a niche behind the hatch cover and crouched there, trying to decide which door before him was Voris Shapadin's, and in that moment his answer came to him. The commander dashed from his cabin, buckling a gun about his waist. From the dimness, Kree saw that Shapadin's mouth was torn and bleeding, and that his shirt collar had been ripped. There was frustrated anger in the man which drove him now to seek revenge upon whoever should fall in his pathway.

He whirled as he started down and cried to the officer of the watch, visible through the bridge door, "Post a guard over that hellcat! Which hold is it?"

"No. 3, sir," said the officer. "A sailor found the medico dead with the No. 3 guards!"

"Send men to me down there!" roared Shapadin and leaped out of sight.

The bridge officer was turning to his tubes. Kree flitted by the door and came to Shapadin's quarters.

Dana's composure, up to this moment, had remained under control. She stood now against the table, defiance in her bearing and flame in her eyes, holding her dress together with a clenched fist. There was a bruise on her cheek, but there was proud victory upon her mouth.

And then she saw Kree and recognized him. Her



with meals...or snacks



body started and her face flooded with incredulity. And then a mist swam before her eyes and she stumbled toward him.

Kree glanced back down the ladder into the noisy ship. A guard was coming up to take over his appointed duty. Kree stepped deeper into the room and gripped Dana's hand. He unlimbered a gun and held it loosely.

The sailor stepped through the door, and Kree shot him between the eyes.

"Come on!" said Kree, and hurried Dana beside him.

The officer on watch turned toward the door, not much alarmed, for shot and footfalls were swallowed in the dinning gongs. Kree fired from the waist, and then in the few seconds he thought he could spare, began to smash the fire control panel and throttles with a series of flame cartridges.

"Look out!" screamed Dana into the clamor.

Kree ducked and then spun. The shot went over his head. His own aim was not as bad, for the guard went tumbling backward down the ladder, to lie inertly at the bottom.

In the confusion, Kree tried to recall the way he had come, but almost immediately took a wrong corridor. They came out on the boat deck, but it was port, not starboard, where he was sure of his spaceboat and its equipment.

Somewhere Shapadin was beginning a sweep of the whole vessel, and Kree knew he stood little chance unless he also had the advantage of surprise.

Kree dragged the girl through a door and they found themselves in an officer's pantry. An attendant cowered away from them and vanished through another door before Kree could stop him.

Abruptly the gongs ceased. In the passage outside, the warning howl of the attendant went into the distance.

Kree stumbled across the wardroom with its threadbare cloth and scarred furniture and racked riot guns. He saw that two weapons had been left in the rack and took one of them. But with this type of weapon he had no experience and could not quickly load it. He cast it away from him and drew his remaining belt gun. There were ten shots in this, all that remained to him.

The next two doors let them out on the boat deck on the starboard side, and Kree marked the spaceboat he had checked. It was a considerable distance up the deck from them, its door invitingly open.

They started toward it, and then there was a cry of discovery from behind them. Kree hurled the girl into a niche between the bulges and flattened himself against the side. A shot scored rust

above his head, and another twitched at his belt.

He took careful aim, not allowing himself to be disturbed. A man in the group two hundred feet up the deck screamed and spun about. The others hurriedly dodged back into cover, while Voris Shapadin, behind them, bullied them.

Kree indicated that the girl should run for the open door, and he himself began to back toward it, firing carefully at each face which presented itself at the turn of the passage.

The range was extreme for a flame gun of the belt type. And as his shots missed, the sailors began to gather courage.

Step by step he worked his way back. Cartridge by cartridge he neared the open door where Dana had already arrived. He counted seven. He counted eight.

He whirled and raced for it. A chunk of metal flew out of the door before his outstretched hand. Dana snatched at him and helped him through.

Kree turned in this cover and fired his ninth shot. The group was racing toward him now and the men hard to hit. Kree took very careful aim. He squeezed the trigger carefully, keeping his arm properly loose. The gun recoiled.

Voris Shapadin curled up into an agonized knot on the deck, his speed causing him to tumble three yards farther.

Kree slammed the port. He smashed the heel of his hand against the jet buttons.

There was a crash as the outer port went up. Speed jammed the two against the seats and momentarily blinded them.

After a little he cut the acceleration and eased down into position so that he could discover the use of the controls and the answerability of the jet helm.

He looked across the black skies and all around, but he found no sign of the *Gaffgon*. He looked critically at various stars which blazed through the airless void. One, quite near, was gigantic. And near it there was a planet.

Kree became aware of the girl beside him. Her wonderously blue eyes were fixed upon him as though she were hypnotized.

And then, as though she herself had only begun to believe it, she said, "You . . . I . . . escaped!"

He was getting his equilibrium back now. He grinned at her. She dropped her glance in humility and leaned a little closer to him.

"I . . . I'm sorry for what—"

"Sorry?" said Kree. "Sorry for what?"

"But you . . . are a . . . a very brave and—" She looked at him mistily.

"Brave? Why," said Kree with an offhand wave of his arm, "why, of course I'm brave. I am Kree Lorin. Kree Lorin of Falcon's Nest."

IN TIMES TO COME

Next month Astounding's cover will not be done by Hubert Rogers; our July issue will have a cover identical with that of all other Street & Smith magazines which use picture covers, featuring prominently something that will, at that season take complete possession of every magazine cover in the nation. Next month the magazine-reading public is going to have a unique opportunity; for once they can buy magazines on the basis of that old admonition which implies there's more to a book than its cover. I rather wonder what is going to happen to circulation figures for the whole publishing field next month?

Inside the next issue, we have a line-up of remarkable variety. The names mean something—L. Ron Hubbard, L. Sprague de Camp, Malcolm Jameson, A. E. van Vogt—but the stories are something more to the point. De Camp has a nice idea—the title of his yarn is "The Contraband Cow," and it concerns steakleggers. Van Vogt has one of the neater suggestions as to the nature of the famous "secret weapon" Hitler threatened, but which never came off. His suggestion is, in its way, as neat as del Rey's current item.

There's more of course; in issues soon to come are stories by Clifford D. Simak, Ross Rocklynne

and Norman L. Knight, and several by authors new to Astounding who've been doing nicely in *Unknown*—Cleve Cartmill, Anthony Boucher and Fredric Brown. Also—and of even more interest, perhaps, are the stories by men heretofore unknown, men who will, I hope, help to replace some of the loss of supply resulting from the fact that several of our top-rank men have been called into the navy. Lewis Padgett, Hal Clement and Will Stewart look to me as though they'd live up to Astounding-author convention; each made a first-try sale—each shows signs of being a new top-ranker.

Will Stewart's first—"Collision Orbit"—will appear next month; some of the other newcomers will appear in the July or later issues, as their material finds space in the pages.

Probability Zero does not appear this month; sorry, it's your own fault. The ball got rolling rather late in the month, and there were only three submissions on hand when the last copy was sent to the composing room. It will be with us next issue; to be a nice, healthy liars' club, it needs support from all liars, amateur and professional both.

The Editor.

THE ANALYTICAL LABORATORY

The letters this month did not rate the Probability Zero stories with any degree of consistency, so I can't publish any ratings on those. In future months, when there are Probability Zero stories to rate as well as straight science-fiction material, the Lab will be divided into two sections; the first will rate the straight stories as has been done in the past. The second section will give the readers' decisions as to who the Liar-of-the-Month is. The standings in the Probability Zero section will be calculated in the same way as the standings in the regular Lab, but will, of course, be rated separately.

Story ratings for the April issue show a remarkable phenomenon: for the first time since the

Lab started, I believe, there has been an almost complete unanimity in rating not only the first, but the first two stories. They stand:

Place	Story	Author	Points
1.	Beyond This Horizon	Anson MacDonald	1.0000
2.	Co-operate or Else	A. E. van Vogt	2.008
3.	Strain	L. Ron Hubbard	3.50
4.	If You're Smart—	Colin Keith	3.8
5.	Monopoly	Vic Phillips and Scott Roberts	4.3

The Editor.

ON PAIN OF DEATH

By Robert Moore Williams

● The Martians welcomed anyone into their ancient City of Learning—provided they could pass the Milk Bottle and the Garden of Paradise. But the Milk Bottle baked, and the Garden of Paradise had worse than a snake to make it fatal!

Illustrated by Kramer

Besides the girl, there were five men in the milk bottle. There had been six, but the door in the side had opened and the man known as Ferd, a sneak thief, had seized this opportunity to escape, the door closing automatically behind him.

Although the milk bottle was underground, there was plenty of sunlight in it. Plenty, indeed. The light, caught on the roof of the temple overhead, was reflected downward by an ingenious system of mirrors, flowing through the glass side of the milk bottle in an unending stream of blinding, blistering radiation.

"I never knew there was a place on Mars as warm as this," the man known as Murchison spoke. He was lying flat on his stomach, his eyes closed, his head pillowed in his hands, the top of the single sacklike garment given him by the wardens overhead drawn up to protect the back of his neck.

"It is on the warmish side," John Wade answered. He was sitting on the floor, his single piece of clothing drawn completely over his head. "Not really hot, though. It gets this warm back in Death Valley, on Earth."

"Ah, yes! Death Valley. A very descriptive name, that. I suppose this place we're in could be called Death Bottle."

"It is rather like a bottle," Wade observed, pushing his hood back and glancing through slitted eyes toward the top of the inclosure. Toward the top, the sides of the cell sloped in, forming a neck. It was a good fifteen feet to the neck of the bottle, a jump impossible to Martian muscles, but easily possible to a human born with the strength to lift himself against the greater gravity of Earth. Unlike heaven, it was possible to reach the top of the bottle with a single bound, but when you got there, there was nothing to keep you from falling right back down again. The bottle was neatly stoppered with a solid metal plug that offered no chance for a hand hold. "Ah, well," Wade sighed. "I imagine we're not supposed to get out of here."

"Not," said Murchison, "until the door in the side opens. I believe we will be permitted to escape that way, the way Ferd went."

"We'll never get out of here," the man known as Dopey said suddenly. "We'll die here. All of us. Die. I tell you we'll die." There was a stubble of beard on his cheeks and his eyes were wild.

"Take it easy," John Wade said. "I've been in tighter places than this, and got out."

"You won't get out of this one," Dopey said sullenly.

"You are wrong there, my friend," Murchison said, sitting up. "When the door opens—"

"It won't open again."

"It opened for . . . what was his name, now? . . . Ferd? Ah, yes. It opened for Ferd."

"It didn't just come open," Dopey insisted. "He picked the lock. Good at things like that, Ferd was. Can you pick the lock like Ferd did?"

He looked hopefully around the group. The girl avoided his gaze. The man known as Gully did not bother to answer. The Chinese known as Lao Tsen sat as imperturbable as a yellow Buddha.

"I'm afraid I can't," Wade said, in answer to Dopey's question.

"May I point out again," Murchison said, "that there is no lock on the door. Hence Ferd did not pick the lock. The door merely opened. Or was opened. At this moment I am unable to state which, though I have suspicions."

"You think there is something waiting for us beyond the door?" Wade questioned. "Something perhaps unpleasant?"

Murchison pursed his lips. He sat for a few moments in thought, not opening his eyes. "I am unprepared to say how unpleasant it will be. I think beyond question there is a death instinct inherent in some of us, leading us to seek death. Thus what is beyond that door may not be unpleasant. But it will be definite. Oh, yes, we may all count on that. It will be quite definite."

Silence greeted his words. In some odd way,

everyone present recognized authority in Murchison. He had not let drop a single hint as to who he was or what he was, but when he spoke, he gave the impression of knowing what he was talking about.

Wade decided he liked the man. "You don't seem much worried about it."

"Why worry? Death comes to all of us by and by. To some of us it comes as a friend. When we grow old enough and tired enough, we do not regret seeing . . . ah . . . the black camel kneel before our door."

No one spoke. The blinding sunlight swept into the bottle, a blazing fury of concentrated illumination.

"Have you reached the point where you will no longer regret the coming of the black camel?" Wade queried.

"No," said Murchison judicially. "I estimate I am good for about seven hours before this sunlight forces me willy-nilly through that door. Yes; about seven hours. Maybe a shade under that." He laughed. "Only there is no shade here."

"Then you think the light and the heat in this bottle are designed to force us through the door, as and when it opens?"

"Certainly, my friend. What else?"

Wade shrugged. He had only been talking to make conversation. He talked to keep himself and the others from thinking. "Supposing we just decide to sit here, and don't take advantage of the fine opportunity offered us when the door opens?"

"Then we just sit," Murchison said. "My friend, when the time comes, we will be glad to go through that door, by crawling if necessary. We have been here a mere two hours as yet. Two hours is nothing. We can stand that. But four hours— We will be well roasted by then, the thirst will be coming, and the fever from our burns. We will sell our souls for a drink of water. I think there is no doubt that our friends up above"—he gestured toward the neck of the bottle—"have planned with exceeding ingenuity. We can sit here, and die, or we can go through that door—and come upon something equally definite."

"Them babies are no friends of mine," the man known as Gully spoke. He was short and squat, with massive arms and shoulders. Two front teeth were missing and there was a scar running down the right side of his face. "I'd like to get the neck of that skinny head warden—Guzlick, I think they called him—between my hands. I bet I'd make his eyes pop."

He squeezed his hands together, illustrating his meaning.

"You really can't blame Guzlick too much,"

Wade observed. "After all he has a right to protect the treasures his race has spent so many centuries accumulating"—he looked around the group—"from thieves."

They stirred restlessly at the word. "I take it we are thieves?" he questioned.

"Well," Gully answered, "I don't mind admitting I had hoped to lift a couple of handfuls of diamonds from this point."

"And Ferd, I take it, had a similar idea?"

"You can't call me and Ferd no thieves," the



man known as Dopey shouted. "We didn't come here to steal nothing. We was just lookin' around when them skinny wardens jumped us and chucked us down in this stinkin' hole. But we ain't thieves, me and Ferd ain't."

The man was on his feet, screaming the words. There was no doubt he was a sneak thief, a creeper in the dark. Wade and Murchison tried to quiet him. He wouldn't be quieted.

"I'll quieten him," Gully said. He got to his feet, measured the distance with his eye, and tossed his left. It struck Dopey square on the chin. There was a sharp snap. As if he had sud-

denly come unjoined, Dopey collapsed. He fell in a heap and didn't move.

Wade felt for the heartbeat. His sensitive fingers found a violent flutter that quickly subsided. He reached for the wrist, searching for the pulse. Gully stood over him, a quizzical puzzled expression on his face.

"When you quieten them, they stay quiet," Wade said without smiling.

"Dead?" Murchison asked.

"Broken neck," Wade answered.

Gully's mouth dropped open. "Hell, I didn't mean to kill him," he said defiantly. He was flexing and unflexing the fingers of his left hand, the hand that had dealt the death blow. "I just meant to shut him up. His screamin' was gettin' on my nerves." He looked around the little group, seeking understanding and sympathy. He didn't find either. "So what?" he said defiantly. "I killed him. So what? Anybody want to make something out of it?"

"I don't," said Murchison, sighing. "All in all I imagine our friend known as Dopey was luckier than he perhaps deserved. It may be," he continued, looking at Gully, "that in the near future I shall find myself resorting to screaming. If so, can I rely on you to quieten me as effectively as you quieted Dopey?"

"W-what?"

"There are times when an easy death is much to be desired."

"Hey!" said Wade.

"It's hot in here. I'm beginning to burn. I'd like a drink of water—"

Slap!

Wade's fingers left red marks across Murchison's cheeks. Angry lights leaped into the latter's eyes. He half rose, his fists doubling. "Say, you—" he began. Then he started to laugh and sat back down. "Thanks. I fear I was giving rein to my emotions."

"No dog fight is ever over until the last dog has tucked his tail between his legs," Wade answered cheerfully.

He was going to continue, but the girl interrupted. She hadn't said a word since she, with the others who had come here the same day, had been thrust into the bottle, crouching like a frightened, timid animal against the wall, drawing herself into a knot so the extremely scanty garment the wardens had given her would come nearer to covering her lithe body. Her eyes, in which defiance and unutterable fright had alternated, had gone from one member of the group to another. She seemed dazed.

"I have to get out of here," she whispered. "I have to go home. Mother will be worried. I've been gone so long."

Wade was instantly on his feet. Very gently

he took the girl's hands in his. "There, there, miss. By the way, what is your name?" he questioned, trying to change the subject.

"Ross. Jean Ross. And I have to go home."

"Don't worry, Jean. We'll all be going home pretty soon now. How did you happen to come here in the first place? You know this is a forbidden city to all humans. Even the Martians have to secure special permission to come here."

"I want the secret of beauty," the girl said. Her voice was dazed. She brushed a fallen lock of hair back from her damp forehead.

Wade looked at her more closely. "I'd say you didn't need to look this far for that. Seems to me the Lord gave you that already."

"I'm a dermatologist—beauty operator. I want the secret of Martian beauty—"

Gully snorted. "Martian beauty! What woman wants a leather-skinned mug like they have?"

Jean shook her head. "Scars. Martians never have scars—even ones that have been in accidents, even ones that did have scars for a while. They treat them, somehow. I want to know. I can heal minds with that—"

Wade looked at her with head cocked to one side, then toward the others. Murchison spoke up suddenly.

"Hm-m-m. Makes a sort of sense at that. A woman with a facial scar can go half insane over her 'deformity,' even when other people don't notice it."

"I'd be very famous," she said.

Three thieves had come seeking wealth. This girl had come seeking the secret of scars—and fame.

"You certainly will be famous and rich," Wade said soothingly. "We will be out of here very soon now and you will have the secret."

"Do you really think so?" The fright was going from her eyes. She was young, not over twenty-two, with a pert, lively face.

"I'm sure of it," Wade said emphatically. "You sit down now, like a good girl—"

"But—" She laughed. "This may seem foolish of me, but I would really like a drink of water. And mother! She will be worried."

"Where is your mother?" Wade asked quickly.

"Why, on Earth, of course. In Connecticut. She didn't approve of my coming here. Is there any water? I would really like a drink."

Wade looked at Murchison. The latter slowly shook his head. "I'm afraid it's no use, my friend. But you might try slapping her. It worked on me."

"I'd—rather not," Wade answered.

But when the girl asked for water again, he knew he had no choice. His hand smacked against her cheek. She sighed, leaned against him, and slid to the floor in a faint. For a moment Wade was frantic. Then he started to revive her, but

stopped when Murchison suggested she was better off unconscious.

Sunlight swirled into the room, blinding, burning light. It was so intense that Wade imagined he could hear it crackle.

"A beauty operator," Murchison said, apparently speaking to himself. "Well, well. We certainly seem to be a diverse group. Why did you come, Lao Tsen?"

"I did not come seeking diamonds," the Chinese answered, in surprisingly good English. "Nor fame. Such things are baubles that amuse the young, and I am old."

He was old. His skin was the texture of parchment and so wrinkled that another crease could not have been impressed on the yellow cheeks. Only his eyes were keenly alive, jet torches revealing the flame burning within.

"What does such an old one seek?" Murchison questioned.

"A way to escape the fate of Dopey and what beyond conjecture has been the fate of Ferd," Lao Tsen answered. "One grows old," he murmured vaguely. "That is not good—"

"Well," said Murchison. "Yes, I have heard the wardens live rather extensive lives though I regard the legend of their immortality as sheer nonsense."

Silence fell. Sunlight streamed into the bottle. The girl moaned softly. Wade reached out and patted her hand.

"Do you honestly believe the wardens have discovered the secret of living forever?" Murchison questioned.

"I have no doubt of it. They did not tell me in so many words, but they plainly hinted they knew how to prolong life. As to actual immortality—well, forever is very long."

"The devil! How did you happen to get to talk to them?"

"I came openly, made my request openly. Guzzlick freely admitted they knew how to lengthen the normal life span."

"Damn!" Murchison ejaculated, annoyance in his tone. "Why didn't I do that? Not that," he added quickly, "you seem to have advanced your quest by coming out into the open."

"I have at least not retarded it," the Chinese said. "I gathered, from my conversation with the wardens, that it made no difference whether I came by stealth or came openly—I would have been brought here just the same."

"I don't understand."

"Nor do I. But it seems that everyone who comes here, seeking whatever his nature craves most, is placed in this pit. From here he will pass—or will be driven, again as his nature dictates—through the sole exit that is provided. If he survives what lies beyond the door, his request will be granted."

Wade, glad that Murchison was keeping the conversation ball rolling, had been listening quietly, forcing his mind to follow the meaning of the words, forcing it to ignore the tumult clamoring through his body. Tumult rising from the nerve-ending on his skin, already burned red by the fierce light; tumult rising from his stomach, clamoring for water; tumult rising from the dry, cottony taste of his mouth. Most of what he heard was news to him.

"Hm-m-m," said Murchison thoughtfully. "It all comes back to that door—and what lies beyond it."

This seemed to call for no comment. Lao Tsen made none, relapsing again into wrinkled silence. Minutes ticked by. No one said anything. Silence was not tolerable. Wade kicked the ball of conversation.

"That leaves you, my frined," he said to Murchison.

"Eh?"

"You have not told us why you came here."

"Me— Oh, well, I don't mind. Did you ever hear of Dr. Fleming Murchison?"

Wade blinked. It was a great name this man had mentioned, a name known from Earth to Mars. "The famous surgeon and cancer specialist? Who hasn't heard of him? You aren't by any chance he?"

Murchison nodded. "I found one type of cancer that all my skill will not prevail against. And it is a known fact that the Martians never suffer from cancer. Their legends say that their wise men succeeded in eliminating it entirely from the race. Since this forbidden, holy city is the seat of most of their scientific knowledge, I came here—"

"Seeking a cure for cancer," Wade prompted.

"Yes."

Wade grinned. "Doctor, if you don't mind my saying so, it is a fine thing you are attempting. You are risking your life to find a cure for a hideous disease. That is heroic."

He had liked this physician from the first.

"Scarcely heroic," Murchison said dryly. "Inasmuch as the cancer I am trying hardest to cure is *here*." He tapped his chest. "Just the old law of survival in operation. I am trying to save my own life. If I should succeed, it is possible that other lives may be saved as well, but there is nothing heroic about it. Merely a man trying to keep on living."

His dry voice went into silence.

"My God, man!" Wade gasped. "Surely you can cure yourself!"

"Can you?" Murchison asked. "Can anyone? I have perhaps a year to live. I'm gambling a year of life against an unpleasant and sudden death in



the hope of living thirty years more. Thirty to one. Those are good odds."

The odds were improperly calculated, Wade knew. But to hear them set forth in this fashion gave him a wry feeling. Men came here for the damndest reasons! Wealth, fame, life. And, inconceivable as it sounded, all those things were here to be had for the winning of them. This forbidden city was a treasure house such as the mind of man had never conceived. Jewels, gold, silver, precious metals. Here for uncounted centuries grateful or superstitious Martians had laid their choicest gifts. The treasure had accumulated until it was more than the ransom of any king.

And here were other things than treasure. Even the imperturbable Chinese hunted no will-o'-the-wisp in this forbidden land, if legend was to be trusted. For the wardens up above, if they did not live forever, certainly lived for hundreds of years. It was well within reason that the thing Murchison sought was here, also. There was no cancer on Mars. There had been cancer—the legends said—but the wise men had found a cure. This was the fountainhead of all Martian wisdom, of all learning that the red planet had accumulated during the long centuries. This was the Llasha of Mars. No matter what you sought, you found it here. If you found something you did not seek—well, the Martians were under no obliga-

tion to make comfortable unwanted visitors.

"That accounts for everyone—except you," Murchison said.

Wade had been lost in his own thoughts. He came to with a start.

"What . . . what did you say?"

"I said we now know why each of us came, except you."

"Oh." This was hard to say, not because he had any reason for withholding it, but because of something deep within him. The same inner compulsion that had made him what he was kept him from talking easily about himself. "I . . . oh, the devil . . . I came here . . . my name is Wade. John Wade."

He had not as yet told them his name. He mentioned it now, diffidently, feeling like an ass because he expected them to recognize it. It was inconceivable that this lithe six-footer, who could—and had—faced the charge of an elephant, should be afraid to tell his name. Most fears were meaningless to Wade. But the fear of seeming boastful was very real to him. He stammered his name.

A little stir ran through the bottle. Lao Tsen lost his imperturbability. The yellow mask slid from his face, revealing startled interest. Gully's mouth dropped open. The truculent defiance went out of the thug's eyes. The girl had revived. She

stirred, staring at Wade. There was one person in the bottle who did not react. Dopey.

Even Murchison gasped.

"John Wade! Not the John Wade who brought the first spaceship to Mars!"

Wade nodded. He did not trust himself to speak. That first spaceship—a one-man job, utilizing a new type of drive. That had been twenty years ago. He had been a kid then, barely turned seventeen.

But even then the compelling urge within him had driven him to take long chances. Somewhere there was something that he wanted.

"You're the Wade who whipped Slugger Mahoney, with bare fists, no holds barred?" Gully husked.

"He slipped," Wade answered. That fight had occurred on the Moon, in the improvised space dome erected there after the first rocket ships made Moon flight possible.

"You're John Wade," the girl whispered. "Who . . . who wrote 'Martian Adventure'?" Her voice faltered, as if she had revealed a secret she did not wish known. In point of fact, Wade had been the hero of her girlhood, the bronzed adventurer who went everywhere and did everything. "I . . . I never hoped to meet you."

"Are you," the Chinese spoke, "by any chance the son of the John Wade who led my unfortunate people in their last successful fight for freedom from the monkey men?"

That, Wade couldn't answer at all. The memory of his tall and smiling father came into his mind. Lao Tsen read on his face the words he could not make his lips speak. He rose to his feet, and bowed.

"Because of the debt my unworthy people owe to your illustrious sire, my life is yours to command."

The simple words, softly spoken, in that hot, stifling silence were eloquent with meaning.

"Please, sit down," Wade begged. "I can't . . . oh, hell—"

Lao Tsen sat down. If he had been ordered to sit down and die, he would have obeyed without question. He had heard a great name here in this bottle.

"Well," said Murchison. And then again. "Well. Damn it, sir, why did you come here?"

Wade was in torment. Not only was the all too-evident awe of his companions, when they discovered who he was, a source of torment, but the question of why he had come here added to the torment in his mind. Fundamentally, he didn't really know why he had come to this city. He had never known why he did things. Some compelling urge rising within him had sent him all over Earth, to the Moon, to Mars. He *had* to go places where no one had ever been. It was a true wanderlust, a compulsion to go and keep on going,

a compulsion, an inner burning fire.

But when it came to explain why he did things, Wade had no words. He had to go places. *Had* to. Somewhere was something that he sought. What it was and where he would find it, he did not know. It might be that he would find it here, and reach the end of his wandering. It all depended on what waited for him beyond the bottle door.

With a scrape and a click, the door opened.

It was a trapdoor, sliding up into the ceiling, of metal inches thick. It slid out of sight.

The exit had opened. A trap, set for its next victim, or a gate leading to paradise?

Every eye in the blazing oven was drawn to it. The space behind the door was only big enough to hold one man. The space was not empty. A man stood there. Ferd. The sneak thief, who had fled.

Ferd was a little man with a haunted, harried look. Stooped shoulders and a hanging head, he was constantly looking behind him, as if he feared some frightful Nemesis followed after him. He had the sharp features of a rat, and the resemblance to a rodent was further accentuated by two buck teeth. The man known as Ferd. The companion of Dopey. A sneak thief.

He stood in the door.

His head was held erect. Now there was no fear anywhere about him. Nor any shame. His chest was thrown out, his shoulders straight, and his backbone seemed to have become a steel rod.

It was his eyes that held Wade's gaze. His eyes, his eyes—

There had been apprehension in Ferd's eyes, a constantly lurking fear that was never shadowed, never gone.

Gone now. Apprehension and fear. Gone. Instead there was—ecstasy.

Whatever had happened beyond that door, Ferd had found ecstasy there. Something had assuaged his apprehension, taken the fear from his eyes, straightened his shoulders, lifted his chest. Something had made a man out of him, such a man as might walk unafraid into danger.

"What'd ja find, Ferd?" It was Gully speaking, Gully the thug.

No answer. Ferd didn't move.

"What happened to you, man?" Murchison spoke.

A slight shudder shook the body of the thief. The fixed, set ecstasy within his eyes relaxed. His gaze dropped down. For the first time he saw the people in the bottle.

"Wonderful," he whispered.

"What's wonderful?" Murchison demanded. "What did they do to you?"

"Didn't do nuthin' to me." His gaze went incuriously over the body of Dopey. "I just went

in there. Oh, golly, it's heaven. I ain't never seen nuthin' like it. Food? I ain't never seen no eats like they got in there. And after you've et all you can hold, a cigar to stick in your mouth. Beer to drink, all the beer you want. Good clothes. It's warm in there, too. Nice and warm. I tell you it's heaven."

The little group was silent. Wade could hear the husked breathing of every man.

"He's found something!" Gully gasped. "Come on. Let's get in there. Get ta hell out of the door, you rat."

One brawny arm reached out, jerking the slight body from the opening. It came readily. As it came it seemed to blur. The features ran together. The shoulders suddenly lost their erectness, the back acquired a stoop.

Gully had seized Ferd by the arm. Seeing what was happening, he hastily leaped back.

Ferd fell. As if in the moment when he was touched some frightful dissolution had set in and had proceeded instantaneously through his entire body, the little thief fell. As he fell, his whole body fluffed into—dust. A yellowish dust. It spread itself in a pile upon the floor, flowing like sand from a burst bag.

Dust. No flesh. No sign of any flesh. No bones. No indication that there had ever been bones in his body.

Dust. Nothing but dust.

In the thick, horrified silence, men breathed once, and then ceased breathing as their minds tried to grasp the meaning of what they had seen. Then the girl began to scream.

II.

"I thought it would be definite," Murchison spoke from bloodless lips, his eyes fixed in horrible fascination on the tumbled pile of dust on the floor. "Well, it was."

Wade was busy trying to soothe the girl. She clung to him, her fingers digging convulsively into his shoulders. Vaguely he heard the famous surgeon saying, "That man was dead before he was pulled through that door. The process of dissolution that turned him into dust was already far progressed. He had only minutes, seconds, to live when the trap opened—"

Murchison hesitated. He seemed to be talking to himself. "But how on earth did they turn him so completely into dust? Hah! This wasn't done on Earth. Something injected into the body, carried by the bloodstream, some drug or chemical that would produce almost instant dissolution?" The physician shook his head. "I don't know any drug that would produce such a result. It wasn't a drug. It must have been . . . ah . . . a force, a disintegrating energy, that released the atomic

binding forces, and which, in its effect, extended even to the body fluids."

Murchison was a scientist. Even in that moment, his keen mind was attempting to reason from effect to cause. He had ruled out of his thinking the emotional effect produced by the death of the thief. The man was dead. That was that. There was nothing to be done about it. But the manner of death's coming was interesting, something to think about, a fact to puzzle over.

But not to puzzle over long!

"How it was done does not much matter," Murchison said. "The important fact is—the door remains open. I was about to suggest that I be the next one who goes through it—if no one else desires the honor."

He looked questioningly around the group.

His voice was well modulated, cool, calm; he might have been suggesting that he would like to go for a walk, if no one minded. Courteously, politely, he asked for the privilege of being the next one to go into the place where death lurked so hideously.

Silence. Hot, blazing sunlight. And silence. The choked, frightened sobs of the girl were still. Three men looked at Murchison. Quietly the famous surgeon got to his feet.

"I take it there are no objections," he said.

"I'll go," said Wade unemotionally.

"But—"

"If I may suggest it," Wade continued. "I am a younger man. Also, it is possible that I may have had more experience with danger than you have had. Therefore I will go next. If I win through, it is barely possible that no one else will have to face whatever is beyond that door."

His face was grim. If he won through. If—

"I am asking for the privilege of going," Murchison said. "It is not exactly pleasant here in this bottle. And I fear I have overestimated my endurance. I . . . can't stand much more of this heat—"

For the first time Wade saw how near the surgeon was to exhaustion. Veins were throbbing in his forehead and his skin had turned a raw red. Heat prostration was not far off.

Nor were the others in much better condition. Gully had ceased perspiring, a dangerous sign. Lao Tsen, for all his unemotional appearance, was every minute looking more like a yellow mummy. Jean Ross was visibly drooping; she had already been out of her head. How much longer would she last in this blistering sunlight?

Wade himself had long since begun to feel the effects of the heat. His skin, burned raw in spite of the single garment provided, was itching fiercely and thirst had long since become a raging torment rigorously controlled. Wade would not be able to stand the bottle much longer, and he knew it.

The exit from the bottle was invitingly open. "We'll all go," said Wade.

It was the only plausible solution. There was only one objection—the door opened into a metal cell that was only big enough to contain one person at a time.

"How?" Murchison asked.

"That door must be very similar to an air lock. After the trap closes on this side, an exit must open on another side. There must be some mechanism that operates the door. After I get on the other side, I'll try to find the mechanism and lift the sliding trap for someone else to come through. I don't know that I can work it, but if no one has any objections, I'll try it. Our only hope is for all of us to get out of this damned bottle, quickly."

Murchison demurred, but Wade overrode his objections. The eyes of the others followed him as he strode across the bottle to the waiting exit, but he noticed only the eyes of the girl. She had control of herself now. There was no panic in her eyes, and little fear. She was watching him with a longing that she made no attempt to veil.

He stepped into the cage. Apparently his weight released some hidden mechanism. With a soft click the metal panel slid down behind him, shutting him off from the four still prisoned in the bottle.

Whatever waited here in these vaults beneath the forbidden city of Mars, he was on his way to meet it.

Click. The trap closed behind him. *Click.* A trap opened in front of him.

It was as fast as that. A door closed. Another opened.

Life or death waited beyond.

Wade did not stir, did not move a muscle as the trap opened before him. He breathed softly, sniffing the air. There might be a gas in the air. If so, his nose would give him warning.

The air was deliciously cool and fragrant. Wine-like in its freshness. In the bottle it had been stifling hot. Here it was deliciously cool. If there was a gas in the air, he could not detect it.

His eyes, accustomed to the blazing sunlight in the bottle, were slow in coming to focus. His first impression was that there opened before him a dark cavern, a cave that stretched away and away into darkness, always into darkness. Then his eyes began to adjust to the absence of light and he saw that the blackness before him was merely a soft darkness, such a darkness as would be extremely pleasant to the eyes of a man who had been shut up in the blazing illumination of the bottle. Pleasant and restful. A kindly darkness that held no harsh lights and no harsh shadows anywhere.

Ferd had said that heaven was here. Heaven

would be lighted as this cavern was lighted, with a soft illumination that came from no discernible source, a light that was akin to the softness of dusk and the freshness of dawn, a light as restful as the air was fragrant.

As the pupils of his eyes opened more and more, he saw the cavern stretched farther and farther away. It went—into dim distances in which each new vista that was opened up seemed more lovely than the last. Lovely. Breath-taking in its loveliness. An outdoor view, a wooded glade with a tiny silver stream winding down across moss-covered stones and wandering off into the distance in lazy undulations. Shrubs cut to geometrical proportions rising out of a carpet of the green



grass of Mars. Grass that rarely was seen now on the surface of the dry planet. Only along the canals, in the bottoms of the ancient seas. Grass did not grow well on Mars.

Men of Mars had designed this place, had built it, had lavished a painstaking, loving care on it. They had built here what no longer grew on the surface of the planet, a place where grass might grow and tiny streams might tinkle as they moved. A land where the air was plentiful and fragrant, not thin and scorched with dust as on the surface. A cool and restful land, where the wanderer, after surmounting impossible obstacles, might rest in peace. Or rest in death.

Men of Mars, dreaming of heaven, had built this place out of their unfulfilled desires. As on Earth the desert-dwelling Arabs had thought of heaven as a great oasis, so here, on a planet that was almost entirely desert, heaven had been constructed as a greater, finer oasis.

A pleasant breeze was being wafted across this heaven built under the ground. Somewhere a tiny bell was ringing, such a bell as might hang on a thong circling the neck of a *dothar*, the camel of Mars. Then another bell began to ring, and another and another, until the air echoed with the sound. The ringing of the *dothar* bells was pleasant to Martian ears. Naturally they would have included such a sound in this place, in this oasis of green vistas and silver streams, in this underground cavern that stretched so far away into the distance that the farther side was not visible.

After being for hours in the bottle, coming in the space of seconds from the blazing inferno of light and heat to this enchanted spot, a man might be forgiven for rushing forward and burying his head in the silver stream winding down from the rocks ahead. A man might be expected to gulp at those sparkling waters, relieving the tension in his parched, cottony throat.

John Wade did not move. He stood perfectly still, his eyes darting over the scene before him. Ferd had come here. Ferd was dust in the bottom of the bottle. Whatever had happened to Ferd, it had happened here—in paradise.

This was not paradise. This was not heaven. This was the favorite lurking place of death. This was a short cut to destruction.

Wade studied the scene before him. He had played games with death before now. One step would take him from the cage to the carpet of grass. Two steps would take him to the nearest pool of water. He did not move.

Turning, he pounded on the metal door behind him, shouting a single word:

"Murchison!"

He waited for an answer. An answer came. Muffled by the metal panel, far off, he heard the physician shout his name.

"I'm going to try to open the trap," Wade shouted. "If I get it open, come through slowly, one at a time."

The mechanism was ridiculously simple. There were two doors, so arranged that when one was open the other was closed. But before he stepped out of the cage, Wade vehemently wished he had a stick or something to test that suspicious grass before him. It was just possible, in this place that looked like heaven but certainly wasn't, that traps waited for the feet of the unwary. He tested the place where he was supposed to step, gingerly placing his weight upon it. It seemed solid. But he went out of the cage on his hands and knees.

Behind him was a solid wall, broken only by the door. He pulled the door down. A second later it opened again. Murchison came through. In a few minutes all were through. They stared with uncomprehending eyes at the scene before them.

"Water!" Gully gulped, heading toward the rippling stream.

Wade grabbed him.

"Let go of me," the thug husked, striking at the man who held him. "I'm dyin' for a drink."

"You fool! This place is not what it seems. How do you know that water isn't poisoned?"

Wade wanted a drink, too, wanted it badly. The sight of that clear, sparkling stream had almost driven him frantic. Every atom in his body rose up and yelled at the sight of the water. But—he remembered the bottle, the fierce heat and the gnawing, torturing thirst it had caused. Had the bottle been designed to make its victims horribly thirsty, so that, on passing through the door, the first thing they would do would be to run and drink?

Was this water the first trap for the unwary!

Gully's fist was drawn back to strike again at Wade. The blow never fell. "P-p-poisoned! I n-never thought of that." The thug swallowed. "But God, pal, I gotta have a drink!"

"How do you know the water is poisoned?" Murchison demanded.

"I don't know it," Wade said bitterly. "I just suspect there is something wrong with it. This place may look like paradise, but it was designed by fiends. The set-up is too perfect for that water to be trustworthy."

The physician was silent, considering the matter. Gulping, Gully looked at the sparkling water. The girl's eyes were also fixed on it, but she made no move toward it. Lao Tsen watched Wade.

"Poisoned or not poisoned, the fact remains—we have to drink," Murchison said. "In that case—"

"In that case, this unworthy person will test the water," Lao Tsen said quietly. "If it is good, then all may drink. If it is bad, then only one need pay the penalty."

The Chinese started toward the stream.

"But—" Wade protested.

Lao Tsen shook his head. "No, my son. I will make the test. There is the matter of a debt that remains unpaid. It is an honor that I may pay part of it here."

There was no arguing with him. He was a man demanding the privilege of dying. Yet he had come here seeking immortality. He had found here an unpaid debt and to the Chinese a debt is a sacred honor, the paying of it more precious even than the hope of immortality.

He knelt beside the stream. Taking the water in his cupped hands, he tasted it with tip of tongue and lips. The little group watched. Lao Tsen nodded. "It seems sweet and fresh," he said.

A second later Gully had his head buried in it. Murchison started forward. So did the girl. Wade did not move.

"Do you not trust me?" the Chinese queried softly.

"I trust your loyalty, Lao Tsen," Wade answered. "If you had found anything wrong with the water, you would certainly tell us. But your knowledge of what might be wrong with it, I do not trust."

Jean Ross and Murchison had started to drink. Now they hesitated, looking at Wade.

"I have some slight knowledge of poisons," the physician said. "Will you trust my knowledge?"

Gravely, he tested the water. "It's just a shade off," he said, smacking his lips. "But for Mars it seems to be good water. Won't you have some?"

Stubbornly Wade shook his head.

"Do you know of anything wrong with it?"

"No."

"Wade, I've got to drink," the surgeon said. "I've simply got to. My thirst is killing me. As thirsty as I am, I just can't stand here and look at this water and not drink. I don't have that much will power."

"You're no thirstier than I am," Wade answered. "For all I know, the water is good. I just don't trust this situation. Go ahead and drink, if you have to."

Murchison drank. Gully was practically wallowing in the water. Lao Tsen was drinking slowly, a sip at a time. Here was water for the thirsty. Jean Ross was looking at Wade. Her eyes went from the water to him, back again to the water. Her throat was working and her breath was coming in gusty, panting sobs.

"Are . . . aren't you going to drink?" she whispered.

"No."

There was desperate longing on her face. "I . . . I've simply got to drink."

"Go ahead. I won't stop you."

"But you aren't drinking."

"I can wait an hour."

She was fighting to make a decision. She wanted the water, wanted it worse than she had ever wanted anything in all her life—even fame. But here was a man who did not drink.

"Then I won't, either," she said. "I'll wait."

She wouldn't, couldn't, wait long, Wade knew. He scuffed around in the grass until he found two small pebbles. He slipped one under his tongue, gave the other to the girl. "It will help," he said.

The three men drank. Watching them, Wade wondered how many Martians, after spending a few hours in the bottle, had drunk here from this silver stream. And how many men from Earth? Not many Earthlings. Not over a few hundred humans had landed on Mars as yet. Space flight was dangerous. And the races of Mars were strong. They ruled their planet. Humans came to the red world only as guests. Few men had ever come to this forbidden city, so few must have drunk here. No one knew how many men had come here. Certainly no one had ever returned. Death waited here in this paradise.

The three men drank their fill. Nothing happened to show whether they had drunk some subtle poison. They insisted there was nothing wrong with the water. "Best stuff I ever tasted," Gully said. "Better than beer. You better have some."

It was the hardest decision John Wade ever had to make. Harder even to fight than the thirst was the unquestioned fact that he had no sound reason to suspect the water. Just a hunch, a feeling, told him to beware. He refused to drink. Because he would not touch the water, the girl also refused.

An hour later he was beginning to curse himself for a fool. Nothing had happened to the three who had drunk. The water seemed to have worked a miraculous revival in their spirits. They returned again and again to the stream. Wade and the girl watched them with haunted eyes.

"I'm so thirsty," she whispered to him.

"You want to live, don't you?" he savagely replied.

She didn't answer. She wanted to live. So did Wade.

Already he had begun to search for an exit from this paradise. The place was miles in extent. Wade knew, without bothering to look, that any exit would be well hidden. Remembering Ferd, he also knew that before any exit was reached, death would extend coldly definite hands toward them. He did not know, and could not guess, how death lurked here. It might be in the air they were breathing, it might be in the water, it might be in the grass, the ground, the shrubs. It might even be in the sound of the bells whose soft music chimed through this Martian paradise.

If you won through here—according to what Guzlick, chief of the wardens, had told Lao Tsen—

you won what you had sought in coming to this forbidden city.

They made a circuit of the place. The roof, painted to represent the nighttime sky outside, was bright with stars and the twin moons of Mars. In the restful half light the roof looked as if it did not exist, but where it came down to the floor, around the rim of this cavern, it was real enough—solid stone. The paradise was possibly two miles in circumference. They circled completely around it, returning to their starting place—the pool and the stream in front of the door that led into the bottle.

Nothing had happened. They saw no one. They were the only visitors in heaven. There seemed to be no danger anywhere.

"Well, we're back to our starting point," said Murchison cheerfully. His whole manner had undergone a change. In the bottle he had been brave but slightly gloomy. Here he was neither gloomy nor brave. He seemed to have forgotten completely his reason for coming to this forbidden city. Somehow, all fear had left him.

It had left Gully, too. The killer was in a rare good humor. He was laughing and cracking jokes. Dirty jokes. Wade felt like choking him. Wade was thirsty and tense, tenser than he had ever been before. Every time he moved, some hidden center of his mind warned him that danger was all around him. But he couldn't see it, couldn't find it. It was hidden.

Lao Tsen seemed not to sense the danger, either. Like Murchison and Gully, his manner had changed. He was no longer dignified, haughtily aloof. He laughed with Gully, forgetting that he had come here, across the wastes of space, seeking if not immortality at least the substitute the Martians were rumored to have discovered.

"Far as I'm concerned, this is the place for me," Gully said. "You others can do what you like, but I'm willing to stay here as long as they will let me."

"A beautiful world, indeed," Lao Tsen agreed. He sniffed the fragrant wind, then laughed happily. "If I did not know that such plants do not grow here, I would be certain that I could smell the fragrance of lotus blooms in this breeze. *Om Mani Uadme Hum*. Ah, the jewel in the lotus, amen."

Wade stared at the Chinese in horrible fascination. To Lao Tsen the breeze carried the fragrance of lotus blooms.

Then it happened. Or perhaps it had already happened and only became visible at this point. Lao Tsen saw his ancestors.

"Father!" he exclaimed.

The Chinese have a great reverence for their ancestors. Lao Tsen looked to be at least eighty years old, but when he saw his father he bowed

humbly, and promptly broke into a torrent of limpid Chinese.

"He's out of his head," Murchison whispered to Wade.

It was an incredible scene. The Chinese was entirely oblivious of their presence. Smiling happily, he was talking to the creations of his own mind.

Wade felt cold chills run up and down his back. Ferd had come through the door, babbling of heaven, of incredibly delightful food, of a cigar to stick in the corner of his mouth. This place was a heaven of sorts, but if there was any food here, or any cigars, Wade had not seen them. But Ferd had found something. And the Chinese was finding something.

"Lao Tsen!" said Wade sharply.

The Chinese glanced quickly at him. "Be quiet," he said.

"Get control of yourself."

"I have myself under perfect control." He turned away. "Father; I should like to present to you John Wade."

He was introducing Wade to an invisible ancestor.

"Stop it," Wade ordered. "There's no one here." He took the Chinese by the arm, but Lao Tsen wrenched away from him. "Foreign devil!" he hissed. "I go to speak with my revered ancestors in private."

He walked away. Wade followed him. Lao Tsen apparently got the impression he was being pursued. Moving with a speed incredible in one so old, he started to run. Wade followed him. To his surprise, he discovered Lao Tsen was running faster than he was. He darted in and out among the shrubbery with amazing speed, leaped the tiny stream, and Wade lost sight of him.

If the Chinese in his present deluded state were permitted to wander at will in this place, anything might happen to him. Certainly there were death traps here. Lao Tsen might stumble into one of them. But Lao Tsen had disappeared.

A few minutes later Wade found him. He was standing in the center of a little glade, apparently communing with himself. He gave no sign when Wade approached. Wade took him gently by the arm to lead him back to the others.

At his touch, Lao Tsen crumbled into dust.

The death that lurked here had found another victim. But how had it come to Lao Tsen?

Wade stumbled back to the place where the others waited. He gave a sigh of relief when he saw them. They were all there. Safe. Jean was safe. He wondered why he felt a glow because she was safe. Women had never entered his life. But he felt a strange thanksgiving because no harm had come to her.

Gully approached.



"Hey, Wade," he shouted. "Look here what I found. Just look at 'em will you? Just look!"

The man seemed dazed with excitement. He held his hand toward Wade. Two rough pebbles lay in his palm.

"Diamonds!" he croaked. "Diamonds! They're everywhere!" As he spoke he spied another pebble in the grass and made a grab for it.

Lao Tsen had seen his ancestors. Gully was seeing diamonds.

In that moment, Wade realized the true horror of this place. Something that happened here caused the victims of this paradise to have illusions. Ferd, a sneak thief who probably had never had enough to eat in his life, had thought he had eaten bounteously. The one thing he had wanted most all his life was—food. Lao Tsen had wor-

shipped his ancestors. They had come to him. Gully was a thug and to Gully pebbles were diamonds.

Horror drove a knife into Wade's soul.

"Get some of these diamonds for yourself, pal," Gully invited, pausing a moment in his search. "They're everywhere."

How long after the illusions came before disintegration set in? Sweat was popping out all over Wade's body, a greasy film of perspiration covered his skin, the palms of his hands were sticky. He drew away from Gully. Murchison and Jean Ross were watching him. The girl looked frantic.

"W-what's happened to him?" she whispered.

"Are you all right?" Wade demanded.

"Y-yes. At least I think so. But what's hap-

pened to him? What became of Lao Tsen? Couldn't you find him?"

Wade turned to Murchison. "Are you all right?"

"Yes," the physician answered. His eyes were glowing.

Wade sighed. Two people were safe.

"For the first time in years I am truly all right," the surgeon continued, bright lights showing in his eyes. "You know, my boy, the most wonderful thing has happened. I can scarcely believe it. I came here thinking I had cancer. You know, I was wrong. I don't have cancer. I never did have it. My fear that I did have it was entirely an illusion."

"Oh, Lord!" Wade gasped. "You've got it, too!"

"I don't understand," the famous surgeon said. "I don't have it. That's what I was explaining to you. I only thought I had it. I really don't. And I can't begin to convey to you how happy this discovery has made me. To think you are going to die, and then suddenly discover you are going to live! That, my boy, is ecstasy."

All the taut tightness was gone from Murchison's face. All fear was gone, all worry, all fret. He took at peace with himself and with the world.

"I'm going to live," he whispered. "I'm going to live—"

In paradise a voice went down the wind, whispering, "I'm going to live. I'm going to live—" The sound died in haunted echoes. John Wade and Jean Ross stood rooted to the ground. The fragrant wind, blowing from some unseen source, was fresh upon their faces. Somewhere in the background, *dothar* bells chimed.

This was paradise. Here you found what you sought.

The silence was rent by a scream. It was Gully. He had ceased gathering pebbles, was standing stiffly erect, screaming. The scream choked off, died in a gurgle. Gully stood as rigid as a statue. For a second he stood there, still, unmoving. There was the suggestion of strain about him, as though he were trying to scream, and couldn't.

Then, apparently from the effect of the breeze, he began to slump. Dust blew from the statue that was Gully. It blew in little streams, tinting the breeze with yellow. It continued to blow, under the caressing pressure of a breeze so slight as to be almost no breeze. Gravity tugged at the statue. It began to slump. In small yellow rivulets it ran down to the ground, became an ochre cone on the green grass.

"My God!" Murchison choked, and the sound of the voice jerked Wade's eyes to the surgeon. He seemed to have lost his illusion, at least momentarily. The sight of Gully turning to dust had shocked him back to reality. "It was the water," he gasped. "It had a funny taste. You were right, Wade. Drinking the water was the first step to

destruction. It forged the first link in the chain that turned Gully to dust. I didn't recognize it then, but I recognize it now. Don't drink that water, Wade. *Don't drink that water!*"

He was screaming the words. Knowing death was coming, he was trying to warn his two remaining companions. As suddenly as he had started, he stopped screaming. A change came over him. The ecstasy returned to his eyes.

"What am I saying? That was ridiculous. There is life in the water, and a cure for all diseases. It cured me. It cured—"

Dust blew in the breeze. Dust settled in a yellow cone upon the green grass carpet. Dust yellow and dry, so light it would blow in the weakest breeze. Through paradise dust that had once been a man was blowing.

"As long as we don't touch the water, we're apparently safe," Wade husked. "That gives us time. And with time, we can find our way out of here. No puzzle, not even one built by the Martians, can't be cracked. They've all got a key somewhere, even this one. We'll find that key, and get out of here, and it will be with the greatest pleasure that I will wring the neck of any Martian who stands in my way. But no matter how thirsty we become, we won't drink that water."

He realized she was staring at him. Now, as never before, there was fear in her eyes.

"But—" The words came jerkily. "You don't understand. I've already taken a drink."

"What?"

"Just before Lao Tsen began— I just couldn't resist any longer. I had to have a drink and the others who had drunk the water seemed unaffected. I was dying of thirst."

She had drunk the forbidden water of paradise. Already the virus was moving through her veins.

He started toward her. She drew away from him.

"No. Don't touch me. Just touching me might give you the same thing I have. Stay away from me."

It was scarcely possible that touching her would infect him. But another thought struck him. In touching Ferd, Gully had apparently precipitated the disintegration. When Wade had touched Lao Tsen, the Chinese had turned to dust. Touching a person in whose veins the deadly disintegration was already flowing, seemingly hastened the effect. He did not try to touch the girl. And she fled from him. Seemingly, drinking the water of this hellish place gave the afflicted ones far greater than normal strength. As Lao Tsen had outrun him, so Jean Ross evaded him.

He called. She did not answer. Afraid that she might communicate the effect to him, she was hiding. There was no point in trying to find her. In this dimly lighted place, among the shrubbery

growing here, she could hide forever.

"I've got an hour," Wade thought grimly, "to find a way out of here. At least an hour is needed for the water to take effect. If I can find my way out of here in that time—"

If! But he was John Wade and not accustomed to giving up without trying.

III.

Although he didn't know it, it took him exactly fifty minutes to find an exit. The wind, the breeze so gentle it was almost no breeze, led him to it. The wind was the clue. It had to come from somewhere. He wondered, when he found the cleverly concealed ventilators that fed the breeze into paradise, if the wind were supposed to serve as a clue. Was it designed to lead the victim to freedom? Had it, in the long time this place must have existed, ever served its purpose? Had anyone else ever escaped from this parody of heaven?

There was yet another thought, as he forced the ventilator open: if this was the exit purposefully left for a person intelligent enough to escape the dust, would there not be other traps ahead? The wardens were not likely to facilitate anything other than the death of a person in their heaven.

If there were traps ahead, he had to face them. There was no other course. Time was flowing swiftly against him now. He had to escape and by some method force the wardens to release the girl, counteracting the effect of the deadly virus that flowed in her veins. If there was a counter-agent for the dust-producing poison!

It was a tall order.

He slid into the ventilator shaft, wiggling like a snake. It was barely large enough to accommodate him. The tube was completely dark. A warm, fragrant wind was blowing through it. He wiggled into the wind.

Something touched his fingers, something that moved, something that felt like a rope. It hissed. The hiss tensed his muscles in the rigid paralysis of utter fear. A snake! In this warm tube, in this darkness ahead of him, was a snake.

Then he relaxed, sighing. He came from Earth and on Earth the hiss of a snake meant danger. Snakes on the planet across the skies were dangerous. It was different on Mars. The reptiles here were not poisonous. In fact, the Martians cherished them as house pets.

"Beat it!" he said. "Scram out of the way."

The snake hissed again, farther off now. He followed it. Not hearing it again, he assumed it had crawled into a side vent and escaped.

The shaft joined another shaft, and another and another, becoming larger each time. Finally it came to the source of this warm, fragrant air.

At another time, he might have been interested

in the air-conditioning system devised by the Martians. Now he was only interested in finding the vent that logically must be in the tube. There had to be a vent. From time to time someone had to enter the shaft and clean it. He found a section of the shaft that would slide aside. Opening it, he looked out into a small room. There was one thing in the room that held his attention—a glass door. Through the door he could see a large room with a checkerboard floor. Seated at a desk in that room, reading a manuscript, was Guzlick, chief of the wardens. He was alone.

Wade slid out of the ventilator tube. He flattened himself against the wall beside the glass door, one eye surveying the room beyond.

Guzlick was alone. There was no doubt about that.

With one finger Wade pushed against the door. It wasn't locked.

Then a movement of color on the floor near the warden's desk caught his eye. The floor was laid out in black and white squares, apparently of tile, like a huge checkerboard, each section being about three feet square. There was a tiny snake lying on one of the black squares near Guzlick's desk. Another snake. This one was certainly a pet. It didn't matter. Its movement had caught his eye.

He tensed himself to charge into the room.

The snake crawled from a black square to an adjoining white square. Flame licked from nowhere and touched it. It writhed, stiffened, died.

Wade checked his charge, flattened himself against the wall. That room was not what it seemed. It was a horrible trap, a worse trap even than the water that waited for the thirsty ones who entered paradise. A trap. And he had almost fallen into it. His body was suddenly dank with sweat.

"Enter," a voice said.

The voice spoke in Martian, but Wade knew enough of that language to understand readily. The voice came from very near him. He whirled. Through a cleverly concealed door in the other side of the room three wardens had entered. They stood facing him. Each held a Martian flame pistol. The guns were pointed straight at him.

"Enter and face Guzlick, you who have escaped from paradise," one said.

"Enter and be judged."

"Enter the room where Guzlick waits, you who have evaded the water and found the clue of the wind."

Then the wind, the ventilator shaft that led here, Guzlick quietly waiting beyond the glass door, had been another trap. He had fallen into it. In that room beyond, the room he was ordered to enter, death waited. Death surer, faster, more horrible than the dust.

The flame guns were very steady. "Enter or die here."

They meant what they said. They would destroy him where he stood if he refused to obey them. He didn't have a chance.

Then he remembered the snake, and the way it had died. His heart leaped. Was it possible that he did have a chance?

He shoved aside the door, stood for an instant studying the room. Guzlick had left off reading the manuscript. He was watching Wade with all the intentness of a cat watching a mouse about to come within range of its claws. That was the way Guzlick looked—like a cat. The warden chief was silent. The three guards were silent.

Stepping only on the black squares, Wade walked into the room, strode purposefully forward, stopped in front of Guzlick's desk, his eyes drilling into the warden's face.

For an instant Guzlick sat without moving a muscle, like an ancient graven image. Then he smiled.

"Well done, my son," he said, touching a button on his desk and rising to his feet. "You can relax now. The ordeal is over. Whatever you sought in coming here, you have won it—if it is within our power to give."

Wade stared at the warden in helpless consternation. Guzlick was smiling. The three guards were coming abreast of him. They were putting away their guns and they were smiling, too. Then Guzlick was shaking his hand and the three guards were patting him on the back. Wade did not understand. "I thought . . . I—" he gulped.

"You thought the floor was charged with electricity," Guzlick said. "Well it was. The white squares were charged with negative current, the black squares with positive current. You would have died instantly, and horribly, if you had stepped from a black square to a white one. But you saw the clue we left to guide the observant person to safety, you saw the snake, and you stepped only on the black squares and did not short the current through your body."

Wade knew the principle—a checkerboard floor, the white squares charged negatively, the black ones positively. A careless person walking on that floor, would die. It was not the mechanism that struck him speechless. It was—

"You mean that snake . . . you mean I was supposed to see it?"

Guzlick nodded. "We knew your whereabouts every instant of the time. The snake was placed on a black square just before you came out of the ventilator. Yes, you were supposed to see it."

"But—why?"

"Should we sentence anyone to death without giving him a clue that would lead him to safety? An unobservant man would not have noticed the

snake. An unreasoning man would not have seen in its death a chance to have his own life. No, my son. This is the holy city of Mars. All who come here have their chance to win what they seek. But they must win by their own efforts. Their own intelligence, their own ability, must carry them through."

Wade was dazed. The tremendous pressure that had been on him, the terrible dangers he had faced, had left his mind in a whirl. "You mean—you give everybody a chance?"

"Certainly."

"But Lao Tsen, Gully, Murchison, Jean—the others—"

"Should we give wealth to a thief?" the stunning answer came. "Three thieves came here. Should we give them the wealth they sought?"

There was something of logic in this. Gully, Ferd and Dopey had been thieves. Ferd and Dopey had been weak. They were sneak thieves. Gully had been stronger. He might have been a bandit, taking by force what he wanted, but still a thief.

"But Murchison, Lao Tsen—they were not thieves. I have never known finer men. Yet they—" He choked, remembering the wisps of yellow dust that had blown through paradise.

"The law is: only the strong shall survive. We did not make this law. It was laid on us by nature and we have no choice but to live in accordance with it. The man known as Lao Tsen, the man called Murchison, had many admirable qualities. They had sufficient intelligence—and intelligence is strength—to see that the heat of the bottle might have been designed to make them thirsty and the water provided to quench that thirst. They were suspicious, but they were not strong enough to resist their thirst. Shall we admit weaklings into the companionship of wardens? No, my son. Night and day we labor, through many normal lifetimes, seeking the truths concealed in nature. Arduous toil, too arduous for any but the strongest mind in the strongest body. Also—all of us, all wardens, myself, and the three beside you, came through the paradise, faced the same dangers you faced, and won out over them. Here is no place for weaklings. Here we want only the strong. For the purpose of eliminating all but the strong, the testing was designed. You have won through. You may become one of us. Or you may have what you sought here. Wealth, long life, the knowledge that we have, or that type of immortality that is ours to bestow."

Wade did not know what to say. He was still dazed. He said nothing. He recognized the justice of the wardens. Harsh justice, but no harsher than nature itself; and like nature, this justice was devised to eliminate the unfit, permitting only the strong to live. Murchison and Lao Tsen had not been strong enough to win over the odds against

them. It was hard to realize that the canny Chinese, the famous surgeon had had elements of weakness in them. But they had.

As though he read Wade's thought, Guzlick said, softly: "I, too, am sorry about them. We would have gladly welcomed them here. As to their dying, there is no cause for sorrow. They had only a short time to live, after which they would have died much less pleasantly. Yes, their deaths were quick; they died without ever knowing it was happening, finding, just before death, an illusion that gave them greater happiness than they had ever known. No greater boon is within our power to give."

The warden's voice went into silence. Quietly, almost tenderly, he watched Wade. When he spoke again, it was to ask a question.

"You have won, my son. What was it you sought here? If it is within our power to give, you have only to ask. Will it be wealth, knowledge or immortality?"

"All my life I have sought something," Wade answered slowly. "I did not know what it was, until I came here. Now I know. I want—the girl."

Guzlick nodded. "When you did not drink the water, we anticipated that you would win through. Again we anticipated what you would demand, if you came safely to me. So, as soon as you entered the ventilator, we met the girl, and counteracted the effect of the water, pending your demand."

"And because of two other things. She restrained herself from the water until she felt she knew it to be harmless. And our wardens found her following the path of blowing dust, and bits of leaves, toward the one other escape from the garden."

"Another exit—"

"Air goes in," Guzlick smiled. "Air must go out. She met our wardens in the exhaust vent."

Guzlick waved his hand. A hidden door opened.

Two wardens entered. They were leading Jean Ross between them.

What happened next is not necessary to record. Somehow, Wade found her in his arms. She was clinging to him, trembling, pressing very close to him. Sympathetically, the wardens watched.

"So you choose our immortality," Wade heard Guzlick say. And he heard himself say, "What?"

"The only immortality we know, is in children—the immortality of the race, not of the individual," Guzlick explained. "We can extend the life span. Dieting alone will do that. But in giving you her, we give you, and she gives you, the only immortality known to exist."

Wade heard the words. Instinctively he knew they expressed the truth. He asked no more than that—the truth. Vaguely he heard Guzlick continue speaking.

"Will you stay with us, become one of us, or will you go away?"

Wade was thinking about that. He was almost too tired to think, too exhausted. It would be a problem he would solve after he had slept and rested. He thought he would probably stay here. Here was a vast store of knowledge to be learned, here new knowledge might be taken from nature, here a man might work through several lifetimes, roaming no more. It might be possible to devise for the testing of future wardens some less deadly but no less rigorous test than the waters of paradise. There ought to be some way. He would think about it—tomorrow, after he had rested. Perhaps, in some future time, he might make this place the center of learning in the Solar System, forbidden no longer, offering freely its knowledge to all who came. Whatever the future held, it was good. He would need to wander no more. He had found what he sought, and was content.

The girl stirred in his arms. He looked down at her. She was tired and sleepy. So was he. To rest. To rest—

THE END.

KEEN! **CLEAN!** **QUEEN!**

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A NOSE FOR NEWS

By Roby Wentz

● The nose wasn't particularly necessary to find the news; the situation smelled to heaven, and clear across space to Earth. But it took something special in the way of a nose to find a way to get that story past the censors!

Illustrated by Schneeman

Martin Canday, publisher of the *Mid-American Blade-Verse*, ran a sour eye through the scanty file of copy coming in on the night beam printer from Venus.

He flipped the annunciator key and spoke into the instrument. "Editorial? Canday. Get Kelso Page up here. Fast."

He tore another take of copy out of the chattering printer, slumped in his chair, and brooded over the contents of the flimsy.

When a sneeze sounded in the corridor outside,

Canday did not look up. "Well, Page," he snapped, "come in!"

Kelso Page, star feature writer of the *Blade-Verse*, long and lank, with the features of a genteel billy goat, lounged through the doorway, dabbing delicately at his nose.

"Hello, boss," he said. "What can I do for you?" He sneezed twice and blew his nose once.

"You can stop sneezing," snapped Canday. He thrust the flimsy under Page's nose. "Take a look

at the eyewash TransPlanet beams in from Polar City tonight."

"Man," observed Page, "can move mountains. He has spanned the space between the worlds, and he rules the distant planets, but he can't cure his own hay fever. Mine is worse this June." He glanced at the beam copy. "What about this?"

His employer's voice was scornful. "Read it! Prospector's brawl in the Polar City land office—one man shot; spaceport crack-up; silkite quotations—they never miss *those*; a feature on the aboriginal handicrafts of the Plateau natives—and similar baby food!"

"What about that report on native labor trouble in the silkite country?"

"That's it, of course!" Canday began walking the floor. "The silence on that one is positively thunderous. Three lines, ten days ago. Since then, nothing. Something's doing out there; I'm certain of it. And our great, government-operated news service, TransPlanet Press, created by and for the people—is killing the story!"

"I can tell you what's happening." Page stretched his long legs and blew his nose. "Those poor, pitiful devils of Venusian natives are being dehydrated, dried like prunes in the mines—all so that lovely ladies here can drape themselves in silkite and the United Silkite Corp. won't have to mechanize its operations. So, the abject creatures are probably staging some kind of civil disobedience campaign—mass lay-down."

"Very likely!" Canday stopped his pacing. "But I can't confirm it. Point is, whatever the company's doing is in violation of the Extra-Terrestrial Colonization Articles; result, the administration clamps down on news from Venus—at least until after November and the elections. After that, it won't matter."

Page grinned. "Well, what do you expect? United Silkite owns Troxell and his cabinet; Troxell controls TransPlanet; and Trans-P has the only communicator beam on Venus. Add it up. My figures show four more years of Troxell."

Canday spoke quietly. "If Troxell is re-elected, Page, I'm out of business. I've built the *Blade* on the basis of the best extra-terrestrial coverage in the System. I've had to pull all my men home; you remember the Luna City incident: news the administration doesn't like just doesn't get on the beams any more. I've fought with everything I've got, but this government-run news service is rrry finish. Silkite's out to get me, and they're not doing badly." He paused. "I've got just one more card to play."

He swung around on Page. "The *Andromeda* clears for Polar City at four tomorrow morning. You'll be on her, Page."

Page turned pale. "Now wait a minute. What have you got in mind?"

"That Ph. D. of yours is what I have in mind.

I know what you got it for—Venusian dialects. Well, you'll go into the silkite country, and you'll talk to the natives. You'll find out what—"

The visiphone *brrrrred*. Canday lit it irritably. "Well?"

A round, yellow face appeared in the screen. "Paul Chang, Mr. Canday, reporting from Great Lakes Training Station."

"Chang!" Canday tensed. "Well?"

"Your tip was O. K., sir. Two regiments of Hemispheric Marines embarked early this morning."

"Bound where, man?"

"Why, for Venus, sir. I had the devil's own time with the commandant here, but he finally saw I had him surrounded and admitted it."

"Great work, boy!" The publisher's eyes gleamed. "Stay on it, now, and mug in again in time for the midnight recap. Find out how they were equipped, if you can. Clearing." He touched a button and shouted into the annunciator: "News-caster—foreman? Clear channels—bell bulletin, all frequencies! Stand by!" He touched another button. "Rewrite—Canday! Get this—ready? 'GREAT LAKES NAVAL TRAINING STATION, 10 p. m. Two regiments of Hemispheric Marines embarked secretly for Polar City, Venus, at an early hour today, it was learned exclusively by the *Blade-Universe* tonight. The Washington administration had made no announcement of the dispatch of any armed forces anywhere. Further details as they become available.' Off."

"Wait!" Page spoke into the instrument. "Add this paragraph—ready? 'Dispatch of the troops coincides with persistent rumors of native labor trouble in the Venus Plateau country, where the United Silkite Corp. has extensive holdings.' Off."

Canday smiled grimly. "O. K.," he conceded. "That'll stir 'em up in Washington, all right. We ought to have a couple of official reactions in time for the next recap."

"Well—" Page yawned elaborately. "Guess I'll be going—"

"You certainly are—to Venus."

Abruptly, Page sneezed. "Chief, I'm a sick man. Look at this hay fever of mine—"

"Do it good, and you know it. This marine development sets the whole thing up for us. There's just enough time for a good man to hop to Polar City, get down into the Plateau country, contact the natives and get the story, and make it out again in time for the late September liner."

"I'm a writer, not a foreign correspondent. I hate Venus."

"You'll get in here about ten days before the election—not much time, but enough. If I can break a yarn with marines in it, it'll be hemisphere news; Troxell will be cooked!"

Page groaned. "It's not just Troxell who'll be cooked."

"See the auditor about expenses, and I don't care what you ask for. Just get me a story I can use."

Page sneezed, and wiped his eyes. "I resign. Oh, Hell, what's the use? All right!" From his lips came a swift succession of whistling sounds.

"What did you say?" Canday demanded.

Page paused a moment at the door. "That was Venusian—and God help me if you ever find out what I said." He disappeared, blowing his nose.

The dull, heavy throbbing sounded nearer, now. Coming from somewhere away to the left, it was like a great heart's audible beating.

Kelso Page stumbled along through the rank undergrowth of fleshy porosities, following the squat, gliding shape of the Vleest male ahead. He panted, sucking in the soggy mist that passed for air, slapping a cloud of the flying flatworms.

Polar City lay four hundred miles and more than three weeks to the north.

Everything had happened to delay him. Drummond of Trans-P had been at the spaceport as the *Andromeda* came in, and had run into him quite, quite by accident. The hospitality faucet had been opened wide; the usual worn hay-fever jokes had been pulled on him. In his absence, someone had searched his room at the Polar Palace. Then came the polite inquiries as to his business.

It had taken a bit of doing to get hold of a prospector's outfit and give Drummond the slip. But here he was, muffled in a *broost* parka that was too large, plunging along through the failing light as close as he dared get to the bounds of United Silkite Corp.'s twenty-five-mile-square Working No. 3—from which that pulsing *drump! drump! drump!* was undoubtedly coming.

The Vleest male had stopped and turned toward him, the auricular membrane flickering and trembling across the oval eye pit, apparently listening for something. There was no sound but the steady, distant throbbing.

The Vleest threw up a hand, and a thin, sibilant whistling issued from the palm. He paused, and there was again silence, but after a moment his faceted eye appeared.

"Come!" he whistled.

"I follow," Page sibilated.

They plowed on again without incident. Suddenly, a screen of particularly heavy *broost* parted, and they were in a small clearing. The rounded roofs of underground hovels appeared irregularly over the space, and a little group of the gray-hided creatures was collected amid them, ear-eyes working like mad, keeping up a soft, shrill buzz from their restless hands.

While Page was wondering how they, so close

in, had escaped the press gangs, a male stepped from among them, plainly the leader. As was expected, Page held out both hands in token of good will, and endured that to which he had never been able to accustom himself—the six fingers gripping his five while the narrow tongue moved against his palm. A gesture of friendship.

Then he began working his lips and teeth, informing the leader of his mission; of the sympathy felt by many, many of the Fleest—the Earth people—for the plight of the Vleest; how the bad Fleest—those same who seized his people and made them dig for the *sliss*—now hid the truth of what they did, how he was here to find out what they did, and take back word of it.

The gray-skinned people crowded close around, buzzing and whistling among themselves. Then the leader erupted in a torrent of language that sounded like a cageful of canaries. Page could distinguish the verb *to dry*, which in the Vleest tongue also meant *to die*, repeated over and over. The creature concluded by catching at his arm, urging him across the open space, and into the *broost* again. But now, they were moving *toward* the throbbing sound—

Five males had fallen in behind, Page noted. And it was now darkening fast. He let the hands of the Vleest on either side of him direct his course through the mist-grayness and the flapping growths. It became night, and they went on.

A flicker from up ahead snared his weary attention; some hard, white radiance. What in hell—The Vleest broke into soft, excited shrillnesses. He heard the sounds that meant *dry place*.

Then the *broost* ended, and Page gasped.

They stood in the bush at the limits of a vast plain—cleared or natural, he never knew—broken a half-mile away by a low, loaf-shaped butte. Atop the rounded peak a powerful light moved majestically around its axis, flooding the plain at Page's feet at half-minute intervals.

The leader jerked him back into the shelter of the bush. A company car, whirring along on three-foot-wide treads, hummed leisurely past. A company guard drove—but in the second seat sat a pair of marines! Page recognized the famous service helmets.

"Come!" came the whistled order, then.

He was pulled forward as the great beam of light swept past and around again, and found himself running toward the butte. The light was returning, and, of his own volition, he fell flat on the loose, slimy surface of the plain. The beam passed over them as he held his face a fraction of an inch above the foul-smelling mud. Another car sped past behind them, patrolling in the opposite direction. Then the light was gone, and they were up again, running swiftly—

There were low buildings around the base of the butte, Page saw now, and it was from one of these that the thunderous *DRUMP! DRUMP! DRUMP!* was proceeding. Around another, large structure, off to the right, he could make out figures on patrol. They, too, were marines.

As the light approached, Page hit the slime again and touched the leader's hide, lightly, to the rhythm of the throbbing. "What is it?" he queried softly. "What is it?" He beat the rhythm again.

A shudder shook the Vleest's smooth body. Then he answered, and the sounds, to Page, seemed to be "*death maker*." Death maker? But wait—that could also be *dry maker*—

So that was it! The mighty throb was the beating of the workings' dehydration apparatus, the mighty pump which drew moist air out of, and forced tinder-dry air into, the passages of the workings, thus drying and firming the delicate fibers of the silkite, so that it could be cut away in long, unbroken planks, without mashing or mutilation.

They were now close to the buildings, in a kind of twilight zone, too close to the base of the butte to be seen in the beam of the mighty lamp atop it. Panting, Page scanned the scene swiftly. There was an opening in the hillside, an oblong, sealed portal up to which ran a railway. The rails curved away from the hill, he saw, and around to the other large building, that which the marines guarded.

There was a dump of five-hundred-gallon rocket-fuel drums just ahead. Page glanced about; no one was in sight except the distant marines and another company car whirring along over on the edge of the *broost*, oblivious to them.

He jerked the leader of the Vleest, pointed at the drums, and ran toward them. The creatures followed.

He peered from behind the shelter of the dump. The throb of the dehydrator was now deafening, but across it cut another sound like the horn of a siren. Page stared, for the huge, sealed portal in the hillside was slowly opening, revealing blackness within. "Probably an air lock," he thought, and then forgot everything else in the horror of what followed.

Men—still more marines, armed with flame throwers—had come out of the building beside the portal, and swung into position beside the rails, picketing both sides of the tracks along their full length. There would be fifty men, at least, he figured swiftly.

They waited.

From the tunnel mouth, out of the blackness, emerged cars, running on the rails, flat, open cars, with railings about them like those around cattle

pens. And packed on the cars, standing, sprawling, lying, were scores, hundreds of the Vleest people.

Page was aware that the Vleest with him were trembling, uttering small, fearful, whistling cries— He kept his eyes fixed on the horrible sight. The long train, car after car, wound slowly out of the tunnel and along the rails toward the low building. And as he watched, Page realized that the skins of the creatures on the cars were not like those of his guides—glistening, moist and slippery. They were of a dry, wrinkled texture which was apparent even at this distance.

And then, as the loaded train passed along before him, he became aware that, under the thunderous beating of the dehydrator, the packed beings on the cars were raising a pitiful, agonized keening from the dry mouths in the palms of their waving hands.

Page turned to the Vleest leader, cowering beside him. "Where go?" he asked of the shaking creature, pointing at the miserable throng.

The hissing answer was harder than ever to make out, but he finally distinguished "Wet place—go wet place."

That explained the other group of buildings, then, into which the freighted cars were now disappearing. They would be the *re-hydrating* barracks, in which the miserable, enslaved laborers would now be allowed a period of recuperation under the moist conditions natural to them.

The cars disappeared, but still Page waited. He wondered, crouching there, how long the sub-polar population could survive extinction under these conditions. As for the marines—well, they had nothing to say about it. They were at the disposal of the administration in power.

Sure enough, here came the cars loaded again! Loaded now, though, with new Vleest, with skins of a normal appearance, like those of his companions, but whose attitudes on the slow-moving train were eloquent of misery, physical suffering, dumb dejection—

The long train vanished into the hillside, the outer door of the air lock closed after it, the marines holstered their flame throwers, and disappeared into the gatehouses. Page turned to the leader, laying a pitying hand on his slimy gray shoulder.

"We go," he sibilated.

Still trembling, the creature straightened. Under the sweeping beam of the great light, between the passages of the patrol cars, they dodged again across the slippery plain, running and falling until they were again swallowed up by the *broost*.

The fiber caravan was a day late.

Then it was two days—and three and four.

Page squatted beside the great north-south

fiber-trace, at the end of the fourth day of waiting for the vans, and stared disaster in the face.

His schedule had been cut fine, to begin. There had been no leeway possible, and hitching a ride north with the semimonthly silkite vans was an integral part of his plan for reaching the Polar City spaceport in time for the *Andromeda's* return take-off.

Now, with the fifth day of waiting dragging by, he relaxed miserably. The jig was up. It was too late to make the spaceship—and the *Andromeda* was positively the last ship whose timetable spelled success for Martin Canday's plans.

Here he sat, nursing a story which could overturn political and industrial apple carts on two planets, and there was no way of getting it off Venus in time to do any good. Kelso Page cursed softly and unhappily.

Later on, he heard, far down the wilderness track, the clank and rumble of the low-bodied land transports, and got to his feet, wearily. Sleepy, dirty, exhausted, his impersonation of a down-and-out prospector stuck in the broost lacked nothing to make it convincing. The van boss allowed him a place in the lead cab.

"I don't know why you guys keep on trying," he growled, ill-tempered at being late. "We got everything between here and the Equator tied down." He groused on about native labor and production "slow-downs."

Page let him talk and rode the dipping cab between the misty walls of solid bush, sunk in gloom. At another time, he would have chuckled at the thought of a representative of the hated *Blade* enjoying a free ride on the company—and the consternation if it should ever get known. But now he thought of Canday, waiting.

By the time the slow-grinding caravan was entering the roaring industrial outskirts of town, among the processing and weaving mills, he was almost decided against going back at all. Two hours later, clean, dry and seated in a restaurant where you could get a meal equal to any in Chicago at only six times the price, he pondered the possibility for a newsman on Venus.

Drummond, Trans-P's bureau chief, found him so, and slid into a chair facing him. "Well!" he eyed Page quizzically. "I was worried about you."

"I'll bet." Page tried to mask his mood. "Have a drink?"

"No, thanks. I'm on my way to the transmitter. The night channel opens in two hours. Where'd you go?"

Page eyed him in turn. "Vacation," he said succinctly.

Drummond let it go at that. "Well, glad you're back. See you later." He rose to go. A waitress with an armload of fresh conservatory-grown

roses passed by, and his movement deflected her against Page. The flowers brushed his face.

Page sneezed, once, three times. Drummond roared.

"Even on Venus!" he laughed. "Buy yourself that drink. You need it." He departed, and Page sat for a moment completely motionless. Then he signaled a waiter, and ordered a highball. Sipping it, he mastered an impulse to laugh aloud.

The scheme forming in his mind was fantastic, screwy and ridiculous. But so was the situation which had given rise to it. It was a completely simple plan, and it was utterly nonsensical. If it worked, Martin Canday would have his story and have it on time.

He paid for his drink, postponed the idea of food indefinitely, and dashed for the door. Ten minutes later he entered the town's single recording studio and went furiously to work. An hour later, a tiny spool of recorded steel tape tucked in an inner pocket, and poorer by a fat bill which had purchased secrecy from the attendant, he emerged and hailed a tread-taxi.

"The Iceberg!" he told the driver.

The great communicator-beam station, known as "The Iceberg" because it extended below the surface of the planet thrice as far as it projected above, was silent as Page approached. The close-packed stories of Carlton tubes which generated the mighty impulses were resting.

He entered the office annex and went straight to Drummond's office.

The bureau chief was at his desk. When he saw Page, his eyebrows went up. "Welcome to Trans-P. Look—I've got a deadline. Will it wait?"

"You're wondering where I've been the last few weeks."

Drummond leaned back. "O. K.—now you've mentioned it yourself—I have been."

Page's face was dejected. "Well, I'll tell you. I've been down at No. 3 Working."

Hasty alarm showed in Drummond's face. He masked it almost instantly, but Page was continuing. "Neither of us was born on Pluto, Drummond. You knew when I got off the *Andromeda* what I was here for, and I knew that you knew.

"Well, I didn't get the yarn."

Drummond eyed him. "I'm fairly sure of that," he conceded. "I'm— Well, we both know what the score is on Venus. Since you disappeared, I've been in communication with every Working on the planet. They were all warned about you. You couldn't possibly have gotten onto a reservation without detection."

He permitted himself a grin. "This planet's pretty well run, you know."

"So I've found. Well—I'm here to ask one favor of you, Drummond."

"And that?" The other was instantly suspicious.

"I'd like to send a story."

"Oh, sorry! The beam's chuckablock."

"Look, Drummond, we understand each other. I'm in a spot. The Old Man sends me out here on a hot tip. Well, as far as I'm concerned, there's nothing to it. He'll be sore. So all I'm asking is that you let me beam a yarn of some kind, something he can cast under a Polar City date line, and I can maybe square myself a little. It may mean my job, as it is."

Drummond said nothing.

"If you think I have some gag up my sleeve, I'll tell you what the yarn is—an eye-witness feature on the changes in Polar City and vicinity since I was here five years ago. I'll be using local Board of Trade figures. You can listen to me—cut me off any time you don't like it."

Drummond's eyebrows went up. "You don't want to put it on the printer? You expect to go on in person?"

"Look—how else will it do me any good? I've been into the *broost*. If the Old Man can put on one of his own boys telling a personal experience story, it's an attractive feature. Any other way, it's dead as dishwater."

Drummond was silent. He was a political appointee. It was flattering to have Kelso Page of the *Blade-Universal* begging favors of him.

"Listen," Page said, "I'll record it in advance—how's that? You can play it before you put it on."

Drummond stood up. "O. K. I'll show you the studio." He led the way down a flight of steps.

Once inside the little recording room, Page glanced swiftly around. By the far wall, he spied what he wanted—a play-back machine. He placed the mike beside it, and sat down. "Any time you're ready," he said.

Drummond went into the control room with the engineer and spoke with him a moment. "Bring it back to the office when it's cut," he told Page, when he came out. He left the room.

The engineer had turned his back and was busy-ing himself at the instrument panels. Page took from his pocket the spool of tape he carried, and

thrust it onto the play-back mechanism beside him.

The engineer's back was still turned, as he made a microscopic adjustment of the machine.

The engineer turned and held up a thumb and forefinger. A red light glowed above the glass partition. Page nodded, and began:

"POLAR CITY, Venus, September 29—Special to the *Blade-Universal*—As a reporter who had not visited our sister planet for five years, I have been forced to marvel at the changes that period of time has wrought here. This humming industrial city, then a frontier trading post, is today a permanent community, boasting all the comforts of Earth—if you have the price.

"The city limits have encroached so deeply upon the primordial *broost*, or jungle, that—"

As he spoke, he had quietly touched the starting button on the play-back. There was a sudden, violent interruption to his speech. Startled, the engineer glanced up. But Page had released the button, and was dabbing furiously at his nose. Under the engineer's stare, he pointed to it, and smiled apologetically. The man nodded, grinned, and Page went on with his script.

From far below a deep-toned hum increased in pitch and volume as the Carltons warmed up in readiness for the night's operations.

The *brrrr* of the annunciator split the silence of Canday's office. The Old Man stopped his pacing and flipped the switch. "Well?"

"Printer room, chief? Better come quick. It's Page—he's on the beam, now!"

"Page!" Martin Canday's jaw dropped. "You mean, from—"

"From Polar City. But it's the damndest stuff. Better come on up."

Thirty seconds later, Canday was at the extreme tip of the *Blade-Universal* building, amid the glass-ceiled, clattering bedlam of ninety beam printers funneling news from a thousand points on Earth and throughout the System.

Samish, the beam editor, met him. "In here!" he said.

He pulled Canday into a cubicle whose glasteel

NO FINER DRINK... At home or on the go



walls excluded all sound but the familiar voice of Kelso Page, coming across forty-three million miles of space. Ellison, news editor, and Lopez, managing editor, were already there, listening with baffled expressions.

"—Population here has jumped thirty percent," the voice of Kelso Page was saying, "but there have of course been occasional slow-downs—" A terrific tearing noise cut into his speech. Canday jumped.

"Good God!"

"There it is again!" It was Ellison.

"Sh-h." Samish raised a hand, as Page's voice resumed:

"—slow-downs in industrial efficiency as a result of conditions peculiar to this planet."

"I don't get it," said Lopez. "This stuff is lousy. Who cares about it?"

"What was that noise?" It was Canday asking.

"Don't know. Like he'd sneezed, or something. Hey!" Samish clenched his fist. "That's it, it's his hay fever," he pronounced. "Probably drunk, too, and Trans-P has let him onto the beam with this pap just to rile us!"

"Hay fever's impossible on Venus," snapped Canday, "and he's not drunk, either. Listen."

"Of course," Page was saying, "surface difficulties here often dictate very slow speeds"—again the terrible, tearing noise slashed their eardrums—"on land transports of most kinds."

There was an urgency in the voice, a kind of desperation, unmistakable across the unimaginable distance, which suddenly came home to every man in the room. They looked at one another.

"This is the *damnedest* business," began Lopez, uncertainly.

"—but it must not be supposed that reduced speeds"—again came the high, explosive interruption—"can seriously impede development of Venus' rich resources."

"Samish!" Martin Canday's voice cracked like a whip. "You're taping this?"

"Naturally, sir."

"Fine! Let him finish. Let him finish. And then, get me that tape!" The Old Man's eyes shone brightly. "It's hay fever, all right, boys. I was wrong—and I'm not at all sure he isn't drunk!"

"Yes, sir." Samish scrutinized his chief narrowly, but Canday paid no heed to any of them. The monotonous recital of dull facts and figures went on with its nerve-racking punctuations. Abruptly the recital ended.

"The tape!" Canday was on his feet.

Samish stepped out, and returned almost instantly with a small spool. "Here it is, sir."

"Now, Samish, play it back, at . . . at a foot a minute."

"Pardon me, sir. Did you say a foot—"

"I did. Play it."

The beam editor obeyed. He started the mechanism. From the machine issued a horrid, groaning sound, rising and falling interminably. They stared at each other. Three minutes passed, and Lopez rose. "Well," he shouted, "I must be—"

"Sit down," rasped Canday.

Another minute passed. Suddenly the groaning ceased and the voice of Kelso Page spoke, clearly and rapidly: "POLAR CITY, Venus, September 29. Special to the *Blade-Universe*—Hemispheric Marines, armed with flame throwers, are backing the great United Silkite Corp. in flagrant and inhuman violations of the Extra-Terrestrial Colonization Articles. At a silkite mine in the sub-polar bush four hundred miles south of here—"

His voice stopped, and the horrible groaning commenced again. But the men in the room were on their feet, paying no heed for the moment. It was Ellison broke the silence.

"Glory!" he said softly. "Glory!"

Martin Canday bowed his head. "Listen," he said, and as he spoke the groanings abruptly ceased again, and Page's voice once more took it up.

"I saw marines, men dispatched from Great Lakes Training Station last June, herd hundreds of the defenseless Vleest people to slow death in the tinder-dry depths of a silkite mine. I saw other hundreds of these same peop—"

The voice ceased again, but Canday reached over, snatched the tape from the machine and handed it to Ellison. "Get it down," he said to him. "Fifteen minutes." He turned on Lopez. "Bell bulletin, all frequencies," he ordered. "Clear everything."

Lopez and Ellison departed. Samish looked Canday up and down. "Would you mind telling me, Mr. Canday," he began respectfully, "just how you—"

Canday expelled a long breath. "Did you happen to notice that just before each one of those 'sneezes,' as you called them—and they *did* sound like just that—the idea of slowness, of slowing down would invariably be inserted in Page's ostensible story? Well"—he spread his hands—"I slowed it down."

Samish gulped. "I've seen a lot in twenty-two years of news work," he said, "but this is the first time I ever heard a sneeze make sense."

"You might say instead," suggested Canday solemnly, "that Kelso Page has a nose for news."

NO HANDICAP ALLOWED

By R. S. Richardson

● Astronomical calculation methods are, given sufficient observational data, enormously precise. They are much, much too precise to permit that the late return of Halley's Comet was a mere inaccuracy of calculation. Was it due to a disturbance by the gravitation of Pluto—?

This article was first conceived simply as a discussion of a problem in theoretical astronomy that has gone unsolved for over thirty years. Although it has recently been investigated anew, the problem still is unsolved; in fact, the investigation only served to deepen the mystery. It was intended to give the background of the case, the fresh material that was tried and found wanting, and end with a few original speculations.

The last part was where the difficulty came in—nothing very brilliant of a speculative nature would come to mind. Then the idea suddenly occurred: Why not make the problem into a form of test, a test in which readers of science-fiction could pit their ingenuity against that of some top-notch research scientists? Men who have furnished the local color for many of their favorite stories by analyzing planetary atmospheres, patrolling the sky for supernovae, and tracking down new satellites. Use these men for guinea pigs to get their firsthand reaction to this problem. Then report the results to readers of science-fiction as a challenge to their own imaginations.

Accordingly, at the earliest opportunity the material below was presented before a scientific gathering, which in this case happened to be the Journal Club in Pasadena. This is a small, informal organization which somehow manages to function without dues or by-laws and only one officer. Although anyone may attend, it is composed largely of scientists from half a dozen nearby institutions of learning. A program is made out in advance and when a member's turn arrives he is free to arise and unburden himself for an hour. The club was originally designed along the lines of the seminars held in English universities where scientists think nothing of arguing for hours over the latest discoveries, consuming large quantities of beer and tobacco in the process. Unfortunately this ideal has never been fully realized in our local discussion group.

A test of this kind would be eminently fair in

that this particular problem was outside the field of all those contacted except one. Therefore, they had no specialized knowledge to give them an unfair advantage; on the contrary, any advantage is more likely to be on the other side. Neither did they have an opportunity to ponder the question in advance, but responded with the first notion that presented itself.

This is in no way represented as one of those test-yourself quizzes where you turn to the back of the book to find out if you are an introvert or how happily married you are. It pretends to be nothing more than a chance to compare your answers to an easily understood problem in astronomy with the best that a group of professional scientists could furnish, many of whom rate a star in *American Men of Science*.

After reading the article below, ask yourself honestly: How would I have fared if I had been at this meeting? Would I have been able to make a really worth-while contribution? One fully as good or better than those given here?

THE PROBLEM

Comets constitute a threat to the astronomer in what is generally regarded as his strongest citadel—celestial mechanics. In certain respects this has become almost a closed field. The agreement between theory and observation is so nearly perfect that research has become limited to routine computation of the orbits of new objects or those of exceptional interest. Yet, for this very reason, any long outstanding discrepancy in gravitational astronomy becomes glaringly conspicuous. The attack on these cases may lag for years and then be suddenly renewed as a fresh wave of thought sweeps aside former obstacles. A classic example is the overrapid advance in the perihelion of Mercury's orbit which was cleared up by the general theory of relativity.

Foremost among such discrepancies are certain anomalies in the motion of comets that have never

received a satisfactory explanation. Although no one tries deliberately to hush these matters up, yet they are little known and seldom mentioned even in the technical literature. One of the most famous and, by far the best authenticated, is the delay in the return of Halley's Comet in 1910.

It will be recalled Halley suspected that the great comets of 1456, 1531, 1607 and 1682 were one and the same object and predicted it would be seen again about 1758. In those days this was a bold and daring statement, and coming from a man so noted as Halley created quite a stir. Among other things, Halley was denounced as a sensationalist and accused of seeking publicity for himself by prophesying something that couldn't happen until after his death. Astronomers are notoriously long-lived and Halley did pretty well at that, dying in 1742 at the age of eighty-six. But one must be born at exactly the right time to expect to see this comet at a second return.

As the date drew near, great enthusiasm began to be aroused. The famous mathematician, Clairaut, took upon himself the task of rigorously determining the time of perihelion passage, or moment of closest approach to the Sun. This turned out to be a bigger job than he had expected and it gradually settled down into a grim race against the comet. Aided by a corps of expert computers, among which a woman distinguished herself for the first time, they toiled at the effect of Jupiter and Saturn's perturbing influence. This would be a big piece of work today with electric computing machines to grind out the numbers; what it must have been then is appalling to contemplate. By keeping at it for six months from morning till night, and even at meals, they finally won out. Clairaut announced to the French Academy that perihelion would be on April 13, 1759, but made the reservation that this was uncertain by a month either way. Halley's Comet was first seen by an amateur astronomer on Christmas Day of 1758 and passed perihelion on March 13, just barely getting within the designated limit. But the prediction was wonderfully close at that when it is considered that Uranus, Neptune and Pluto were as yet unknown, or, as Clairaut himself said, "even some planet too far removed from the Sun to be even perceived."

The next return in 1835 found five contestants vying for the honor of making the closest prediction of perihelion passage. Uranus could now be taken into account and better values were available for the masses of Jupiter and Saturn. Long before the comet was due they had filed their results. This time the uncertainty had been narrowed from two months down to three weeks. Actually the comet swept by perihelion within three days of the time set by one of the entries—

the only one apparently who had not been previously awarded with some kind of a medal for his efforts.

So far there had never been the slightest doubt that all deviations from the predicted course were due to errors in the theory or inaccuracy in the constants used. Not until 1906 was attention directed to several strange, not to say, startling peculiarities in the motion of Halley's Comet.

Dr. A. C. D. Crommelin of the Greenwich Observatory was the first to notice that something was wrong. In a paper to the Royal Society he remarked that there had been developed a formula about thirty years before that gave the time of every perihelion passage from 11 B. C. to 1835 A. D. with an error of less than a year. According to this formula the next return should occur in 1913, whereas a detailed computation based on the observations of 1835 gave 1910. In other words, the first time this formula was used to *predict* a return it failed utterly. Crommelin appealed to some mathematician with the necessary leisure and ability to come forward and find out where the trouble lay.

Since the mathematicians seemed rather reluctant to volunteer their services, Crommelin resolved to investigate the matter himself. His regular work of reducing the Greenwich altazimuth observations kept him busy all day so that Halley's Comet had to be attended to during his spare time. He approached a fellow staff member, Dr. P. H. Cowell, and persuaded him to become a partner in the enterprise. Together they began what at length developed into a masterpiece of numerical computation. Those whose mathematical experience is limited to balancing a bank account or keeping score in a bowling match can hardly realize the skill necessary to carry through a piece of work of this kind. Numerical computation is not merely a form of glorified arithmetic. It is more in the nature of a craft, like wood carving or glass blowing.

They first attempted to correct the figures published in 1835, but finding this to be practically hopeless, decided to abandon all previous results and start from scratch. They were determined there should be no approximations, no loose ends, or wishful thinking such as their predecessors had sometimes inserted into the formulae. The comet was to be checked in and out of each step of its journey as closely as a train is timed from one station to the next. It was to be tied down so tightly there would be no freedom left even for so tricky an escape artist as a comet. To meet these requirements was not easy. When near the Sun the comet's motion had to be corrected after every two days and when in the region of Neptune's orbit at intervals of two hundred fifty-six days. This was done for the whole period from 1759 to 1909, working backward from 1835 to 1759

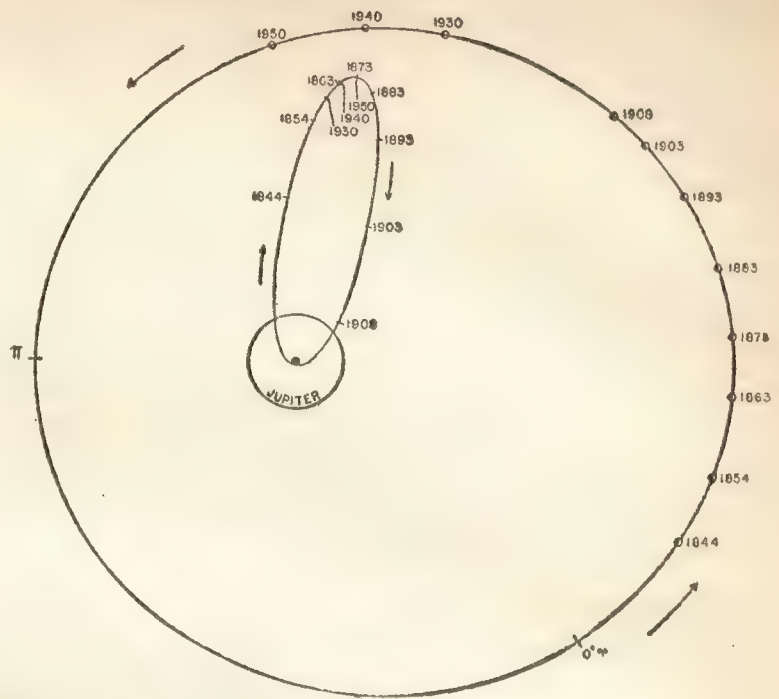
and forward from 1835 to 1909 for a total of fifty-four thousand eight hundred and forty-eight days. In some of the final computations the figures were carried out to one hundred thousand millionth of an astronomical unit. Which meant that the position of Halley's Comet with respect to the center of gravity of the Solar System was determined to within less than five feet.

Their date officially set for perihelion passage was T : 1910 April 16.61. On this one result they staked everything. They made no reservations, claimed no possible mitigating circumstances, left no loopholes for escape afterward. Not only did they burn their bridges behind them, but in addition deliberately went out on a limb besides. In their memoir they stated:

"In conclusion, we consider that our method, if pressed to the extreme accuracy of which it is capable, will give results of a higher degree of accuracy than any previously published method of dealing with this comet; in fact that any deviation of observation from theory to the extent of more than a fraction of a day would indicate the action of unknown or nongravitational forces."

With their calculations completed and the date announced, nothing remained but to await word from the observational men. This was not long in coming. Halley's Comet was first picked up on a plate taken at Heidelberg on the morning of September 11, 1909. As it fell Sunward with ever-increasing speed the answer soon became clear. The comet was lagging behind time and not by any fraction of a day, either. Larger and larger the discrepancy grew. Perihelion was not passed until April 19.64—3.03 days beyond the predicted date. Once again the comet had eluded them!

Cowell and Crommelin stood by their published results and refused to admit their calculations could be off by so gross an amount as 3.03 days out of fifty-four thousand eight hundred and forty-eight. No uncertainty in the positions and masses of the planets could conceivably have created an error of this magnitude. As an example, Cowell pointed out that to remove this difference by changing the mass of the Earth, it would be necessary to alter the accepted value by ten percent, which is twenty times more than this quantity can possibly be in doubt. Only one other



Position of Pluto relative to Halley's Comet during revolution 1835-1910 and close approach at present aphelion passage.

This diagram is somewhat misleading owing to the inclination of the two orbits to one another. All of the orbit of Halley's Comet is actually under the orbit of Pluto except a very small portion where it noses up above at perihelion. The aphelion point should be about a quarter of an inch below the plane of the paper on a three-dimensional model.

alternative remained. This was voiced by Sir David Gill when conferring the gold medal of the Royal Society upon Dr. Cowell.

"Thus, unless there be a planet beyond Neptune which made a near approach to the comet between 1835 and 1910—we are drawn to the conclusion that the discrepancy of three days must be due to some other cause than gravitational attraction."

Looking backward from a distance of thirty years the answer may now seem absurdly easy—Pluto. Discovered nineteen years after Halley's Comet made its last bow, Pluto moves around the Sun at a mean distance of 39.5 astronomical units. The orbit of Halley's Comet stretches out to 35 A. U. So far no reliable mass of Pluto has been obtained, but we feel confident it can hardly exceed one Earth (1.0 E). Just the thing they needed back in 1910 to account for those extra three days.

It might be supposed that as soon as Pluto's orbit was known this calculation would be made. As a matter of fact, no one got around to it until this year. The reason was very simple—everybody had forgotten about it! Once Halley's Comet was out of sight, the whole subject was soon dismissed. And so many exciting things have

happened since then that long ago it was all buried in the archives. For in these eventful days who cares what happened back in the mauve-colored year of 1910?

Recently, however, this once burning question was uncovered by accident. There it was still demanding explanation. Nothing had changed. The orbital elements of the planets are the same. The masses Cowell and Crommelin used are identical with those that will go into the American Ephemeris and Nautical Almanac for 1942. And the long rows of figures giving the positions of Halley's Comet are just as good now as when they won the Lindemann prize for their authors as a sort of consolation for not hitting perihelion on the nose. This award of one thousand marks (about two hundred fifty dollars) had been offered for the best essay on the return of Halley's Comet in 1910 and Cowell and Crommelin's manuscript had easily swept the field.

All that was needed was to correct their positions for the disturbing effect of Pluto and see how much difference was made in the time of perihelion. Not only should Pluto clear up the discrepancy of three days, but what was vastly more important, the problem could be worked backward and the discrepancy used to give the mass of Pluto.

These calculations have been made and the results just announced. The effect of Pluto on Halley's Comet was evaluated from 1844 to 1908 assuming Pluto have a mass of 1.0 E. The total net result of Pluto's pull during this time when it was most effective added up to exactly—nothing. At no time was Pluto close enough to alter the comet's motion sensibly. The closest approach was in 1901 when their separation was 33 A. U. Even supposing Pluto to have a fantastic mass of 100 E would only change perihelion by one day, in the wrong direction.

What is more, it is doubtful if Pluto can ever affect Halley's Comet enough to make an observable difference in its motion. It happens that right now (April, 1942) they are 14 A. U. apart. This is probably as close as these two bodies can ever approach; at least, we are safe in calling it the closest approach in the next one thousand years. Yet, even under these most favorable conditions, calculations show that Pluto is powerless to influence the comet by more than a minute fraction of a day.

If Pluto cannot then be held responsible, we are forced back to the conclusion reached in 1910—some cause other than gravitational attraction is operating within our Solar System. This is an extreme position and should be adopted only as a last resort.

After the article above had been heard by the Journal Club, the usual discussion ensued and

about half an hour was devoted to thinking of reasons why Halley's Comet might have been three days late in 1910. The members present consisted of an assortment of astrophysicists, plain astronomers, theoretical physicists and laboratory spectroscopists. With one exception, none had more than a hearsay knowledge of orbit computation. Their remarks were made on the spur of the moment often in a semihumorous fashion. Although hardly brilliant, nevertheless they are the best anyone could devise at the time. And if you don't think much of their results, you are entirely welcome to figure out something better. At any rate, here they are for what they are worth.

First is given the essential idea itself, next a summary of the general comments that followed, and finally what seemed to be the consensus as to the value of the idea.

1. *The delay was caused by the decrease in the mass of the Sun from 1759 to 1910 by the conversion of its mass into radiant energy.*

Comment. This novel suggestion was made by a spectroscopist. If the source of solar radiation is assumed to come from the annihilation of matter, the Sun is dissolving into light at the rate of four million million grams per second. Impressive as this number sounds it is hopelessly inadequate to meet the requirements. The amount of mass lost in a century is only a tiny fraction of the mass of the Earth. It acts in the right direction, however, to slow down the period of the comet.

Verdict. Quantitatively insufficient.

2. *Halley's Comet encountered a resisting medium which altered its motion.*

Comment. Contributed by an astronomer. This idea is over a century old and is always associated with Encke's ceaseless endeavor to bring under control the comet discovered by Mechain in 1786. It has now been observed at forty-one returns, more than any other in the Solar System. Encke started to work on this comet when a young man in his twenties and was still hard at it when he died at the age of seventy-four. He early noticed that its extraordinarily short period of 3.3 years was steadily decreasing at the rate of 2.5 hours per revolution. He attributed this to a thin resisting medium in the vicinity of the Sun which was too tenuous to affect the planets but speeded up the comet slightly.

Astronomers today are inclined to look down their noses at the hypothesis of a resisting medium. One trouble in Encke's case was that his resisting medium was too unreliable. Sometimes it worked too well, strongly opposing the comet's motion. On other occasions it seemed to go out of operation entirely. There have also been abrupt changes in the comet's path that do not fit

into the scheme at all. But the most inexplicable part is that since 1927 the resisting medium seems to have disappeared completely! At the comet's last return in February, 1941, it was found remarkably close to its predicted position. As Dr. Crommelin observed, with regards to Encke's Comet, "This is undoubtedly one of the greatest mysteries in astronomy." And certainly no one is better qualified to judge than he.

Besides, as someone pointed out, Halley's Comet was late in 1910. A resisting medium should have made it come early.

Verdict. An unconvincing argument with little observational evidence to back it up.

3. *A suitable resisting medium could be devised which would lengthen as well as shorten the comet's period.*

Comment. A theoretical physicist volunteered this one. He pointed out that a resisting medium can be made to act in any way we please, depending upon what sort of a law of density we assume for it. We can make it slow a comet down or speed it up—or do both if necessary.

Verdict. Not very favorably received. Sounded too vague for serious consideration.

4. *An unknown planet several times as massive as the Earth between the orbits of Uranus and Pluto caused the delay.*

Comment. The inevitable Planet X hesitantly injected into the discussion by a teacher of astronomy.

Although never to be ruled out entirely, it was

felt to be an unattractive lead. To be effective, the planet must have a considerable mass, probably as high as 10 E. But an object this large would have made its presence felt long ago by its perturbations on the major planets, principally Uranus.

Another argument against is that the whole sky visible in the northern hemisphere has recently been systematically combed for unknown worlds, trans-Neptunian or otherwise, with negative results.

Verdict. Unable to eliminate altogether, but seems unlikely on basis of dynamical considerations.

5. *A close approach to a GROUP of asteroids.*

Comment. The lone planetary orbit man present came up with this one.

He began by remarking that we know of at least one group of asteroids—the Tojans—that are larger than the average and lie well outside the regular zone. It is not unreasonable to suppose that similar groups occupy the region near the orbits of Saturn, Uranus and Neptune. They would be too small to disturb these planets and difficult to discover by casual observation. The chance of a close encounter with an asteroid cluster would be vastly greater than with a single body. We might even work the old Leverrier-Adams-Neptune problem over again and make a rough prediction of where these bodies are located now.

And although our Solar System consists chiefly of space, he emphasized that encounters between



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its various members can happen. For example, Encke's Comet had what practically amounted to a collision with the minor planet Diana in 1869.

Verdict. This appealed to the club as the most sensible idea so far. It sounded reasonable at least and might even be capable of verification.

6. *A shift in the position of the cometary nucleus or center of gravity.*

Comment. Advanced with great enthusiasm by one of the astronomers as if suddenly struck by the possibilities of the event.

One of the principal difficulties in getting an accurate fix on a comet is that often there is no one point that defines its position; the astronomer in trying to observe it has nothing to "set on," as the saying goes. But if the comet has a star-like nucleus this will always be chosen for reference.

Now imagine that the nucleus undergoes a sudden radical transformation as so frequently happens in comets. It might disintegrate, or send out a bright jet, or even split in two as Biela's Comet did on the night of January 13, 1846.

Actual measurements from the many photographs taken of Halley's Comet in 1910 revealed that it really consisted of two comets moving in nearly parallel orbits. Numerous explosions occurred in the nucleus and head which had much the same effect upon the comet as a planetary perturbation. Streamers issuing from the head indicated the action of repulsive forces hundreds of times greater than gravitation.

The theoretical physicist at this point asked if the change in the comet's form as it goes around the Sun might not have something to do with it. Out beyond Jupiter's orbit the comet is all nucleus, whereas when near the Sun photographs show it with a huge head and tail.

The orbit man replied that he considered this very doubtful. The reason the photographs commonly published show the comet with a bright head and tail is because they are much overexposed from the viewpoint of determining its position. An hour might be needed to bring out faint detail properly, but an astronomer wanting to get a plate for position would give an exposure of only a few seconds—just long enough to record the nucleus and nothing more.

Verdict. A stimulating thought and one with ample observational evidence for support. This is a feature about comets that a mathematical or armchair astronomer—who never under any circumstances would think of looking through a telescope—fails to take into consideration at all. They like to regard a comet as a geometrical point which naturally simplifies their work enormously.

7. *Entanglement with an intra-Mercurial planet.*

The low point of the discussion. Introduced by an astronomer who specializes in stellar dynamics and statistics. In addition to the usual objections to the existence of an intra-Mercurial planet or meteoric ring, Halley's Comet is moving so fast over this portion of its orbit that Mercury itself can be neglected. And there have been numerous other comets besides Halley's that were "Sun-grazers" that showed no evidence of intra-Mercurial bodies.

Verdict. Hardly necessary.

8. *The action of a powerful surge or wave of energy spreading throughout the Solar System.*

Suggested by a visitor. Evidence has been accumulating from long series of observations on celestial events that can be carefully timed and compared centuries apart that the Solar System is occasionally subject to powerful surges or cosmic jolts of mysterious origin. These have been given the name of Trepidation.* The existence of three has now been definitely established. The first was in 1790 and was of a gradual nature; the other two in 1897 and 1917 were strongly marked. The phenomenon to us manifests itself as an apparent variation in our fundamental clock, the Earth's rotation. The variation is far greater than can be attributed to the action of familiar forces, such as the tidal drag.

Now if there is one thing that nature abhors above all others it is a discontinuity. Stars and planets do not move through space by jerks, or vanish at one spot and then come shooting in from another. Instead there is a smooth, steady flow from point to point with no spasmodic leaps in between. But in the case of Encke's Comet, the only one carefully observed over a long period, this is precisely the way it has behaved on several occasions. Can it be that a flimsy body like a comet reacts to small surges in Trepidation that fail to trouble the stolid planets?

Verdict. Received with little comment as one of those things impossible either to prove or disprove. A fascinating idea that might lead anywhere or nowhere.

The session then broke up with the question of where was Halley's Comet during a certain three days from 1759 to 1910 still unsettled. Perhaps it will be all cleared up when it returns again in 1986. Unfortunately none of that little group of scientists who smoked and laughed and wondered about it on a sunny morning in November, 1941, will be there to hear the answer.

*Astounding Science-Fiction. April, 1941. p.106.



MY NAME IS LEGION

By Lester del Rey

● Hitler should, no doubt, be given something special in the way of exile when we finish this war. Our personal choice would be this one; we like the idea.

Illustrated by Kramer

Bresseldorf lay quiet under the late-morning sun—too quiet. In the streets there was no sign of activity, though a few faint banners of smoke spread upward from the chimneys, and the dropped tools of agriculture lay all about, scat-

tered as if from sudden flight. A thin pig wandered slowly and suspiciously down Friedrichstrasse, turned into an open door cautiously, grunted in grudging satisfaction, and disappeared within. But there were no cries of children, no

bustle of men in the surrounding fields, nor women gossiping or making preparations for the noon meal. The few shops, apparently gutted of food-stuffs, were bare, their doors flopping open. Even the dogs were gone.

Major King dropped the binoculars to his side, tight lines about his eyes that contrasted in suspicion with his ruddy British face. "Something funny here, Wolfe. Think it's an ambush?"

Wolfe studied the scene. "Doesn't smell like it, major," he answered. "In the Colonials, we developed something of a sixth sense for that, and I don't get a hunch here. Looks more like a sudden and complete retreat to me, sir."

"We'd have had reports from the observation planes if even a dozen men were on the roads. I don't like this." The major put the binoculars up again. But the scene was unchanged, save that the solitary pig had come out again and was rooting his way down the street in lazy assurance that nothing now menaced him. King shrugged, flipped his hand forward in a quick jerk, and his command moved ahead again, light tanks in front, troop cars and equipment at a safe distance behind, but ready to move forward instantly to hold what ground the tanks might gain. In the village, nothing stirred.

Major King found himself holding his breath as the tanks reached antitank-fire distance, but as prearranged, half of them lumbered forward at a deceptive speed, maneuvered to two abreast to shuttle across Friedrichstrasse toward the village square, and halted. Still, there was no sign of resistance. Wolfe looked at the quiet houses along the street and grinned sourly.

"If it's an ambush, major, they've got sense. They're waiting until we send in our men in the trucks to pick them off then, and letting the tanks alone. But I still don't believe it; not with such an army as he could throw together."

"Hm-m-m." King scowled, and again gave the advance signal.

The trucks moved ahead this time, traveling over the rough road at a clip that threatened to jar the teeth out of the men's heads, and the remaining tanks swung in briskly as a rear guard. The pig stuck his head out of a door as the major's car swept past, squealed, and slipped back inside in haste. Then all were in the little square, barely big enough to hold them, and the tanks were arranged facing out, their thirty-seven-millimeters raking across the houses that bordered, ready for an instant's notice. Smoke continued to rise peacefully, and the town slumbered on, unmindful of this strange invasion.

"Hell!" King's neck felt tense, as if the hair were standing on end. He swung to the men, moved his hands outward. "Out and search! And remember—take him alive if you can! If you

can't, plug his guts and save his face—we'll have to bring back proof!"

They broke into units and stalked out of the square toward the houses with grim efficiency and rifles ready, expecting guerrilla fire at any second; none came. The small advance guard of the Army of Occupation kicked open such doors as were closed and went in and sidewise, their comrades covering them. No shots came, and the only sound was the cries of the men as they reported "Empty!"

Then, as they continued around the square, one of the doors opened quietly and a single man came out, glanced at the rifles centered on him, and threw up his hands, a slight smile on his face. "*Kamerad!*" he shouted toward the major; then in English with only the faintest of accents: "There is no other here, in the whole village."

Holding onto the door, he moved aside slightly to let a search detail go in, waited for them to come out. "You see? I am alone in Bresseldorf; the Leader you seek is gone, and his troops with him."

Judging by the man's facial expression that he was in no condition to come forward, King advanced; Wolfe was at his side, automatic at ready. "I'm Major King, Army of Occupation. We received intelligence from some of the peasants who fled from here yesterday that your returned Fuehrer was hiding here. You say—"

"That he is quite gone, yes; and that you will never find him, though you comb the earth until eternity, Major King. I am Karl Meyers, once of Heidelberg."

"When did he leave?"

"A matter of half an hour or so—what matter? I assure you, sir, he is too far now to trace. Much too far!"

"In half an hour?" King grimaced. "You underestimate the covering power of a modern battalion. Which direction?"

"Yesterday," Meyers answered, and his drawn face lighted slightly. "But tell me, did the peasants report but one Fuehrer?"

King stared at the man in surprise, taking in the basically pleasant face, intelligent eyes, and the pride that lay, somehow, in the bent figure; this was no ordinary villager, but a man of obvious breeding. Nor did he seem anything but completely frank and honest. "No," the major conceded, "there were stories. But when a band of peasants reports a thousand Fuehrers heading fifty thousand troops, we'd be a little slow in believing it, after all."

"Quite so, major. Peasant minds exaggerate." Again there was the sudden lighting of expression. "Yes, so they did—the troops. And in other ways, rather than exaggerating, they minimized. But come inside, sirs, and I'll explain over

a bottle of the rather poor wine I've found here. I'll show you the body of the Leader, and even explain why he's gone—and when."

"But you said—" King shrugged. Let the man be as mysterious as he chose, if his claim of the body was correct. He motioned Wolfe forward with him and followed Meyers into a room that had once been kitchen and dining room, but was now in wild disarray, its normal holdings crammed into the corners to make room for a small piece of mechanism in the center and a sheeted bundle at one side. The machine was apparently in the process of being disassembled.

Meyers lifted the sheet. "Der Fuehrer," he said, simply, and King dropped with a gasp to examine the dead figure revealed.

There were no shoes, and the calluses on the feet said quite plainly that it was customary; such few clothes as remained had apparently been pieced together from odds and ends of peasant clothing, sewed crudely. Yet on them, pinned over the breast, were the two medals that the Leader alone bore. One side of the head had been blown away by one of the new issue German explosive bullets, and what remained was incredibly filthy, matted hair falling below the shoulders, scraggy, tangled beard covering all but the eye and nose. On the left cheek, however, the irregular reversed question-mark scar from the recent attempt at assassination showed plainly, but faded and blended with the normal skin where it should have been still sharp after only two months' healing.

"An old, old man, wild as the wind and dirty as a hog wallow," King thought, "yet, somehow, clearly the man I was after."

Wolfe nodded slowly at his superior's glance. "Sure, why not? I'll cut his hair and give him a shave and a wash. When we're about finished here, we can fire a shot from the gun on the table, if it's still loaded . . . good! Report that Meyers caught him and held him for us; then, while we were questioning him, he went crazy, and Meyers took a shot at him."

"Hm-m-m." King's idea had been about the same. "Men might suspect something, but I can trust them. He'd never stand a careful inspection, of course, without a lot of questions about such things as those feet, but the way things are, no really competent medical inspection will be made. It'll be a little hard to explain those rags, though."

Meyers nodded to a bag against the wall. "You'll find sufficient of his clothes there, major; we couldn't pack out much luggage, but that much we brought." He sank back into a rough chair slowly, the hollow in his cheeks deepening, but a grim humor in his eyes. "Now, you'll want to know how it happened, no doubt? How he died? Suicide—murder; they're one and the same here. He died insane."

The car was long and low. European by its somewhat unrounded lines and engine housing, muddy with the ruck that sprayed up from its wheels and made the road almost impassable. Likewise, it was stolen, though that had no bearing on the matter at hand. Now, as it rounded an ill-banked curve, the driver cursed softly, jerked at the wheel, and somehow managed to keep all four wheels on the road and the whole pointed forward. His foot came down on the gas again, and it churned forward through the muck, then miraculously maneuvered another turn, and they were on a passable road and he could relax.

"Germany, my Leader," he said simply, his large hands gripping at the wheel with now needless ferocity. "Here, of all places, they will least suspect you."

The Leader sat hunched forward, paying little attention to the road or the risks they had taken previously. Whatever his enemies might say of his lack of bravery in the first war, there was no cowardice about him now; power, in unlimited quantity, had made him unaware of personal fear. He shrugged faintly, turning his face to the driver, so that the reversed question-mark scar showed up, running from his left eye down toward the almost comic little mustache. But there was nothing comic about him, somehow; certainly not to Karl Meyers.

"Germany," he said, tonelessly. "Good. I was a fool, Meyers, ever to leave it. Those accursed British—the loutish Russians—ungrateful French—trouble-making Americans—bombs, retreats, uprisings, betrayals—and the two I thought were my friends advising me to flee to Switzerland before my people—Bah, I was a fool. Now those two friends would have me murdered in my bed, as this letter you brought testifies. And the curs stalk the Reich, such as remains of it, and think they have beaten me. Bonaparte was beaten once, and in a hundred days, except for the stupidity of fools and the tricks of weather, even he might have regained his empire. . . . Where?"

"Bresseldorf. My home is near there, and the equipment, also. Besides, when we have—the legion with us, Bresseldorf will feed us, and the clods of peasants will offer little resistance. Also, it is well removed from the areas policed by the Army of Occupation. Thank God, I finished the machine in time."

Meyers swung the car into another little used, but passable, road, and opened it up, knowing it would soon be over. This mad chase had taken more out of him than he'd expected. Slipping across into Switzerland, tracking, playing hunches, finally locating the place where the Fuehrer was hidden had used almost too much time, and the growth within him that would not wait was killing him day by day. Even after finding the place, he'd been forced to slip past the guards who were half

protecting, half imprisoning the Leader and use half a hundred tricks to see him. Convincing him of the conspiracy of his "friends" to have him shot was not hard; the Leader knew something of the duplicity of men in power, or fearful of their lives. Convincing him of the rest of the plan had been harder, but on the coldly logical argument that there was nothing else, the Fuehrer had come. Somehow they'd escaped—he still could give no details of that—and stolen this car, to run out into the rain and the night over the mountain roads, through the back ways, and somehow out unnoticed and into Germany again.

The Leader settled more comfortably into the seat with an automatic motion, his mind far from body comforts. "Bresseldorf? And near it—yes, I remember that clearly now—within fifteen miles of there, there's a small military depot those damned British won't have found yet. There was a new plan—but that doesn't matter now; what matters are the tanks, and better, the ammunition. This machine—will it duplicate tanks, also? And ammunition?"

Meyers nodded. "Tanks, cars, equipment, all of them. But not ammunition or petrol, since once used, they're not on the chain any longer to be taken."

"No matter. God be praised, there's petrol and ammunition enough there, until we can reach the others; and a few men, surely, who are still loyal. I was beginning to doubt loyalty, but tonight you've shown it does exist. Some day, Karl Meyers, you'll find I'm not ungrateful."

"Enough that I serve you," Meyers muttered. "Ah, here we are; good time made, too, since it's but ten in the morning. That house is mine, inside you'll find wine and food, while I dispose of this car in the little lake yonder. Fortunately, the air is still thick here, even though it's not raining. There'll be none to witness."

The Leader had made no move to touch the food when Meyers returned. He was pacing the floor, muttering to himself, working himself up as Meyers had seen him do often before on the great stands in front of the crowds, and the mumbled words had a hysterical drive to them that bordered on insanity. In his eyes, though, there was only the insanity that drives men remorselessly to rule, though that ruling may be under a grimmer sword than that of Damocles. He stopped as he saw Meyers, and one of his rare and sudden smiles flashed out, unexpectedly warm and human, like a small, bewildered boy peering out from the chinks of the man's armor. This was the man who had cried when he saw his soldiers dying; then sent them on again, sure they should honor him for the right to die; and like all those most loved or hated by their fellow men, he was a paradox of confusions, unpredictable.

"The machine, Karl," he reminded the other gently. "As I remember, the Jew—Christ—cast a thousand devils out of one man; well, let's see you cast ten thousand out of me—and devils they'll be to those who fetter the Reich! This time I think we'll make no words of secret weapons, but annihilate them first, eh? After that—there'll be a day of atonement for those who failed me, and a new and greater Germany—master of a world!"

"Yes, my Leader."

Meyers turned and slipped through the low door, back into a part of the building that had once been a stable, but was now converted into a workshop, filled with a few pieces of fine machinery and half a hundred makeshifts, held together, it seemed, with hope and prayer. He stopped before a small affair slightly larger than a suitcase, only a few dials and control knobs showing on the panel, the rest covered with a black housing. From it, two small wires led to a single storage battery.

"This?" The Fuehrer looked at it doubtfully.

"This, Leader. This is one case where brute power has little to do, and the proper use everything. A few tubes, coils, condensers, two little things of my own, and perhaps five watts of power feeding in—no more. Just as the cap that explodes the bomb may be small and weak, yet release forces that bring down the very mountains. Simple in design, yet there's no danger of them finding it."

"So? And it works in what way?"

Meyers scowled, thinking. "Unless you can think in a plenum, my Leader, I can't explain," he began diffidently. "Oh, mathematicians believe they can—but they think in symbols and terms, not in the reality. Only by thinking in the plenum itself can this be understood, and with due modesty, I alone in the long years since I gave up work at Heidelberg have devoted the time and effort—with untold pure luck—to master such thought. It isn't encompassed in mere symbols on paper."

"What," the Leader wanted to know, "is a plenum?"

"A complete universe, stretching up and forward and sidewise—and durationally; the last being the difficulty. The plenum is—well, the composite whole of all that is and was and will be—it is everything and everywhen, all existing together as a unit, in which time does not move, but simply is, like length or thickness. As an example, years ago in one of those American magazines, there was a story of a man who saw himself. He came through a woods somewhere and stumbled on a machine, got in, and it took him three days back in time. Then, he lived forward again, saw himself get in the machine and go back. Therefore, the time machine was never made, since he always took it back, let it stay three days, and took it back again. It was a closed circle, uncreated,

but existent in the plenum. By normal nonplenary thought, impossible."

"Someone had to make it." The Leader's eyes clouded suspiciously.

Meyers shook his head. "Not so. See, I draw this line upon the paper, calling the paper now a plenum. It starts here, follows here, ends here. That is like life, machines, and so forth. We begin, we continue, we end. Now, I draw a circle—where does it begin or end? Yes, followed by a two-dimensional creature, it would be utter madness, continuing forever without reason or beginning—to us, simply a circle. Or, here I have a pebble—do you see at one side the energy, then the molecules, then the compounds, then the stone, followed by breakdown products? No, simply a stone. And in a plenum, that time machine is simply a pebble—complete, needing no justification, since it was."

The Leader nodded doubtfully, vaguely aware that he seemed to understand, but did not. If the machine worked, though, what matter the reason? "And—"

"And, by looking into the plenum as a unit, I obtain miracles, seemingly. I pull an object back from its future to stand beside its present. I multiply it in the present. As you might take a straight string and bend it into a series of waves or loops, so that it met itself repeatedly. For that, I need some power, yet not much. When I cause the bending from the future to the present, I cause nothing, since in a plenum, all that is, was and will be; when I bring you back, the mere fact that you are back means that you always have and always will exist in that manner. Seemingly then, if I did nothing, you would still multiply, but since my attempt to create such a condition is fixed in the plenum beside your multiplying at this time, therefore I must do so. The little energy I use, really, has only the purpose of not bringing you exactly within yourself, but separating individuals. Simple, is it not?"

"When I see an example, Meyers, I'll believe my eyes," the Leader answered.

Meyers grinned, and put a small coin on the ground, making quick adjustments of the dials. "I'll cause it to multiply from each two minutes," he said. "From each two minutes in the future, I'll bring it back to now. See!"

He depressed a switch, a watch in his hand. Instantly, there was a spreading out and multiplying, instantaneous or too rapid to be followed. As he released the switch, the Leader stumbled backward away from the small mountain of coins. Meyers glanced at him, consulted his watch, and moved another lever at the top. After a second or so, the pile disappeared, as quietly and quickly as it had come into being. There was a glint of

triumph or something akin to it in the scientist's eyes as he turned back to the Fuehrer.

"I've tried it on myself, so it's safe to living things," he answered the unasked question.

The Leader nodded impatiently and stepped to the place where the coin had been laid. "Get on with it, then. The sooner the accursed enemies and traitors are driven out, the better it will be."

Meyers hesitated. "There's one other thing," he said doubtfully. "When those others are here, there might be a question of leadership, which would go ill with us. I mean no offense, my Leader, but—well, sometimes a man looks at things differently at different ages, and any disagreement would delay us. Fortunately, though, there's a curious by-product of the use of this machine; apparently, its action has some relation to thought, and I've found in my experiments that any strong thought on the part of the original will be duplicated in the others; I don't fully understand it myself, but it seems to work that way. The compulsion dissipates slowly and is gone in a day or so, but—"

"So?"

"So, if you'll think to yourself while you're standing there: 'I must obey my original implicitly; I must not cause trouble for my original or Karl Meyers,' then the problem will be cared for automatically. Concentrate on that, my Leader, and perhaps it would be wise to concentrate also on the thought that there should be no talking by our legion, except as we demand."

"Good. There'll be time for talk when the action is finished. Now, begin!"

The Leader motioned toward the machine and Meyers breathed a sigh of relief as the scarred face crinkled in concentration. From a table at the side, the scientist picked up a rifle and automatic, put them into the other's hands, and went to his machine.

"The weapons will be duplicated, also," he said, setting the controls carefully. "Now, it should be enough if I take you back from each twenty-four hours in the future. And since there isn't room here, I'll assemble the duplicates in rows outside. So."

He depressed the switch and a red bulb on the control panel lighted. In the room, nothing happened, for a few minutes; then the bulb went out, and Meyers released the controls. "It's over. The machine has traced ahead and brought back until there was no further extension of yourself; living, that is, since I set it for you in life only."

"But I felt nothing." The Leader glanced at the machine with a slight scowl, then stepped quickly to the door for a hasty look. Momentarily, superstitious awe flicked across his face, to give place to sharp triumph. "Excellent, Meyers, most excellent. For this day, we'll have the world at our feet, and that soon!"

In the field outside, a curious company was lined up in rows. Meyers ran his eyes down the ranks, smiling faintly, as he traced forward. Near, in almost exact duplication of the man at his side, were several hundred; then, as his eyes moved backward, the resemblance was still strong, but differences began to creep in. And farthest from him a group of old men stood, their clothes faded and tattered, their faces hidden under mangled beards. Rifles and automatics were gripped in the hands of all the legion. There were also other details, and Meyers nodded slowly to himself, but he made no mention of them to the Fuehrer, who seemed not to notice.

The Leader was looking ahead, a hard glow in his eyes, his face contorted with some triumphant vision. Then, slowly and softly at first, he began to speak and to pace back and forth in front of the doorway, moving his arms. Meyers only half listened, busy with his own thoughts, but he could have guessed the words as they came forth with mounting fury, worked up to a climax and broke,

to repeat it all again. Probably it was a great speech the Leader was making, one that would have swept a mob from their seats in crazy exultation in other days and set them screaming with savage applause. But the strange Legion of Later Leaders stood quietly, faces betraying varying emotions, mostly unreadable. Finally the speaker seemed to sense the difference and paused in the middle of one of his rising climaxes; he half-turned to Meyers, then suddenly swung back, decisively.

"But I speak to myself," he addressed the legion again in a level, reasonable voice. "You who come after me know what is to be this day and in the days to come, so why should I tell you? And you know that my cause is just. The Jews, the Jew-lovers, the Pluto-democracies, the Bolsheviks, the treasonous cowards within and without the Reich must be put down! They shall be! Now, they are sure of victory, but tomorrow they'll be trembling in their beds and begging for peace. And soon, like a tide irresistible and without end, from the few we can trust many shall be made,



"The Leader—is here."

and they shall sweep forward to victory. Not victory in a decade, nor a year, but in a month! We shall go north and south and east and west! We shall show them that our fangs are not pulled; that those which we lost were but our milk teeth, now replaced by a second and harder growth!

"And, for those who would have betrayed us, or bound us down in chains to feed the gold lust of the mad democracies, or denied us the room to live which is rightfully ours—for those, we shall find a proper place. This time, for once and for all, there shall be an end to the evils that corrupt the earth—the Jews and the Bolsheviks, and their friends, and friends' friends. Germany shall emerge, purged and cleansed, a new and greater Reich, whose domain shall not be Europe, nor this hemisphere, but the world!

"Many of you have seen all this in the future from which you come, and all of you must be ready to reassure yourselves of it today, that the glory of it may fill your tomorrow. Now, we march against a few peasants. Tomorrow, after quartering in Bresseldorf, we shall be in the secret depot, where those who remain loyal shall be privileged to multiply and join us, and where we shall multiply all our armament ten-thousandfold! Into Bresseldorf, then, and if any of the peasants are disloyal, be merciless in removing the scum! Forward!"

One of the men in the front—the nearest—was crying openly, his face white, his hands clenched savagely around the rifle he held, and the Leader smiled at the display of fervor and started forward. Meyers touched his shoulder.

"My Leader, there is no need that you should walk, though these must. I have a small auto here, into which we can put the machine. Send the legion ahead, and we'll follow later; they'll have little trouble clearing out Bresseldorf for us. Then, when we've packed our duplicator and I've assembled spare parts for an emergency, we can join them."

"By all means, yes. The machine must be well handled." The Fuehrer nodded and turned back to the men. "Proceed to Bresseldorf, then, and we follow. Secure quarters for yourself and food, and a place for me and for Meyers; we stop there until I can send word to the depot during the night and extend my plans. To Bresseldorf!"

Silently, without apparent organization, but with only small confusion, the legion turned and moved off, rifles in hands. There were no orders, no beating of drums to announce to the world that the Leader was on the march again, but the movement of that body of men, all gradations of the same man, was impressive enough without fanfare as it turned into the road that led to Bresseldorf, only a mile away. Meyers saw a small cart coming toward them, watched it halt while the driver stared dumbly at the company approaching. Then,

with a shriek that cut thinly over the distance, he was whipping his animal about and heading in wild flight toward the village.

"I think the peasants will cause no trouble, my Leader," the scientist guessed, turning back to the shop. "No, the legion will be quartered by the time we reach them."

And when the little car drove up into the village square half an hour later and the two men got out, the legion was quartered well enough to satisfy all prophets. There was no sign of the peasants, but the men from the future were moving back and forth into the houses and shops along the street, carrying foodstuffs to be cooked. Cellars and stores had been well gutted, and a few pigs were already killed and being cut up—not skillfully, perhaps, but well enough for practical purposes.

The Leader motioned toward one of the amateur butchers, a copy of himself who seemed perhaps two or three years older, and the man approached with frozen face. His knuckles, Meyers noted, were white where his fingers clasped around the butcher knife he had been using.

"The peasants—what happened?"

The legionnaire's face set tighter, and he opened his mouth to say something; apparently he changed his mind after a second, shut it and shrugged. "Nothing," he answered. "We met a peasant on the road who went ahead shouting about a million troops, all the Leader. When we got here, there were a few children and women running off, and two men trying to drag away one of the pigs. They left it behind and ran off. Nothing happened."

"Stupid dolts! Superstition, no loyalty!" The Fuehrer twisted his lips, frowning at the man before him, apparently no longer conscious that it was merely a later edition of himself. "Well, show us to the quarters you've picked for us. And have someone send us food and wine. Has a messenger been sent to the men at the tank depot?"

"You did not order it."

"What— No, so I didn't. Well, go yourself, then, if you . . . but, of course, you know where it is, naturally. Tell Hauptmann Immenhoff to expect me tomorrow and not to be surprised at anything. You'll have to go on foot, since we need the car for the machine."

The legionnaire nodded indicating one of the houses on the square. "You quarter here. I go on foot, as I knew I would." He turned expressionlessly and plodded off to the north, grabbing up a half-cooked leg of pork as he passed the fire burning in the middle of the square.

The Leader and Meyers did not waste time following him with their eyes, but went into the house indicated, where wine and food were sent

in to them shortly. With the help of one of the duplicates, space was quickly cleared for the machine, and a crude plank table drawn up for the map that came from the Leader's bag. But Meyers had little appetite for the food or wine, less for the dry task of watching while the other made marks on the paper or stared off into space in some rapt dream of conquest. The hellish tumor inside him was giving him no rest now, and he turned to his machine, puttering over its insides as a release from the pain. Outside, the legion was comparatively silent, only the occasional sound of a man walking past breaking the monotony. Darkness fell just as more food was brought in to them, and the scientist looked out to see the square deserted; apparently the men had moved as silently as ever to the beds selected for the night. And still, the Fuehrer worked over his plans, hardly touching the food at his side.

Finally he stirred. "Done," he stated. "See, Meyers, it is simple now. Tomorrow, probably from the peasants who ran off, the enemy will know we are here. With full speed, possibly they can arrive by noon, and though we start early, fifteen miles is a long march for untrained men; possibly they would catch us on the road. Therefore, we do not march. We remain here."

"Like rats in a trap? Remember, my Leader, while we have possibly ten thousand men with rifles, ammunition can be used but once—so that our apparently large supply actually consists of but fifty rounds at most."

"Even so, we remain, not like rats, but like cheese in a trap. If we move, they can strafe us from the air; if we remain, they send light tanks and trucks of men against us, since they travel fastest. In the morning, therefore, we'll send out the auto with a couple of older men—less danger of their being suspected—to the depot to order Immenhoff here with one medium tank, a crew, and trucks of ammunition and petrol. We allow an hour for the auto to reach Immenhoff and for his return here. Here, they are duplicated to a thousand tanks, perhaps, with crews, and fueled and made ready. Then, when the enemy arrives, we wipe them out, move on to the depot, clean out our supplies there, and strike north to the next. After that—"

He went on, talking now more to himself than to Meyers, and the scientist only pieced together parts of the plan. As might have been expected it was unexpected, audacious, and would probably work. Meyers was no military genius, had only a rough working idea of military operations, but he was reasonably sure that the Leader could play the cards he was dealing himself and come out on top, barring the unforeseen in large quantities. But now, having conquered Europe, the Leader's voice was lower, and what little was audible no longer made sense to the scientist, who drew out

a cheap blanket and threw himself down, his eyes closed.

Still the papers and maps rustled, and the voice droned on in soft snatches, gradually falling to a whisper and then ceasing. There was a final rattling of the map, followed by complete silence, and Meyers could feel the other's eyes on his back. He made no move, and the Leader must have been satisfied by the regular breathing that the scientist was asleep, for he muttered to himself again as he threw another blanket on the floor and blew out the light.

"A useful man, Meyers, now. But after victory, perhaps his machine would be a menace. Well, that can wait."

Meyers smiled slightly in the darkness, then went back to forcing himself to sleep. As the Leader had said, such things could wait. At the moment, his major worry was that the Army of Occupation might come an hour too soon—but that also was nonsense; obviously, from the ranks of the legion, that could not be any part of the order of things. That which was would be, and he had nothing left to fear.

The Leader was already gone from the house when Meyers awoke. For a few minutes the scientist stood staring at the blanket of the other, then shrugged, looked at his watch, and made a hasty breakfast of wine and morphine; with cancer gnawing their vitals, men have small fear of drug addiction, and the opiate would make seeming normality easier for a time. There were still threads to be tied in to his own satisfaction, and little time left in which to do it.

Outside, the heavy dew of the night was long since gone, and the air was fully warmed by the sun. Most of the legion were gathered in the square, some preparing breakfast, others eating, but all in the same stiff silence that had marked their goings and comings since the first. Meyers walked out among them slowly, and their eyes followed him broodingly, but they made no other sign. One of the earlier ones who had been shaving with a straight razor stopped, fingering the blade, his eyes on the scientist's neck.

Meyers stopped before him, half smiling. "Well, why not say it? What are you thinking?"

"Why bother? You know." The legionnaire's fingers clenched around the handle, then relaxed, and he went on with his shaving, muttering as his unsteady hand made the razor nick his skin. "In God's will, if I could draw this once across your throat, Meyers, I'd cut my own for the right."

Meyers nodded. "I expected so. But you can't. Remember? You must obey your original implicitly; you must not cause trouble for your original or Karl Meyers; you must not speak to us or others except as we demand. Of course, in a couple of days, the compulsion would wear away

slowly, but by that time we'll be out of reach of each other. . . . No, back! Stay where you are and continue shaving; from the looks of the others, you'll stop worrying about your hair shortly, but why hurry it?"

"Some day, somehow, I'll beat it! And then, a word to the original—or I'll track you down myself! God!" But the threatening scowl lessened, and the man went reluctantly back to his shaving, in the grip of the compulsion still. Meyers chuckled dryly.

"What was and has been—will be."

He passed down the line again, in and out among the mingled men who were scattered about without order, studying them carefully, noting how they ranged from trim copies of the Leader in field coat and well kept to what might have been demented scavengers picking from the garbage cans of the alleys and back streets. And yet, even the oldest and filthiest of the group was still the same man who had come closer to conquering the known world than anyone since Alexander. Satisfied at last, he turned back toward the house where his quarters were.

A cackling, tittering quaver at his right brought him around abruptly to face something that had once been a man, but now looked more like some animated scarecrow.

"You're Meyers," the old one accused him. "*Shh!* I know it. I remember. Hee-yee, I remember again. Oh, this is wonderful, wonderful, wonderful! Do you wonder how I can speak? Wonderful, wonderful, wonderful!"

Meyers backed a step and the creature advanced again, leering, half dancing in excitement. "Well, how can you speak? The compulsion shouldn't have worn off so soon."

"Hee! Hee-yee-yee! Wonderful!" The wreck of a man was dancing more frantically now, rubbing his hands together. Then he sobered sharply, laughter bubbling out of a straight mouth and tapering off, like the drippings from a closed faucet. "*Shh!* I'll tell you. Yes, tell you all about it, but you mustn't tell *him*. He makes me come here every day where I can eat, and I like to eat. If *he* knew, *he* might not let me come. This is my last day; did you know it? Yes, my last day. I'm the oldest. Wonderful, don't you think it's wonderful? I do."

"You're crazy!" Meyers had expected it, yet the realization of the fact was still a shock to him and to his Continental background of fear of mental unbalance.

The scarecrow figure bobbed its head in agreement. "I'm crazy, yes—crazy. I've been crazy almost a year now— isn't it wonderful? But don't tell *him*. It's nice to be crazy. I can talk now; I couldn't talk before—*he* wouldn't let me. And some of the others are crazy, too, and they talk to me; we talk quietly, and *he* doesn't know. . . .

You're Meyers, I remember now. I've been watching you, wondering, and now I remember. There's something else I should remember—something I should do; I planned it all once, and it was so clever, but now I can't remember— You're Meyers. Don't I hate you?"

"No. No, Leader, I'm your friend." In spite of himself, Meyers was shuddering, wondering how to break away from the maniac. He was painfully aware that for some reason the compulsion on which he had counted no longer worked; insanity had thrown the normal rules overboard. If this person should remember fully— Again Meyers shuddered, not from personal fear, but the fear that certain things still undone might not be completed. "No, great Leader, I'm your real friend. Your best friend. I'm the one who told him to bring you here to eat."

"Yes? Oh, wonderful—I like to eat. But I'm not the Leader; *he* is . . . and *he* told me . . . what did *he* tell me? Hee! I remember again, *he* told me to find you; *he* wants you. And I'm the last. Oh, it's wonderful, wonderful, wonderful, wonderful. Now I'll remember it all, I will. Hee-yee-yee! Wonderful. You'd better go now, Meyers. *He* wants you. Isn't it wonderful?"

Meyers lost no time in leaving, glad for any excuse, but wondering why the Leader had sent for him, and how much the lunatic had told. He glanced at his watch again, and at the sun, checking mentally, and felt surer as he entered the quarters. Then he saw there was no reason to fear, for the Leader had his maps out again, and was nervously tapping his foot against the floor; but there was no personal anger in his glance.

"Meyers? Where were you?"

"Out among the legion, my Leader, making sure they were ready to begin operations. All is prepared."

"Good." The Leader accepted his version without doubt. "I, too, have been busy. The car was sent off almost an hour ago—more than an hour ago—to the depot, and Immenhoff should be here at any moment. No sign of the enemy yet; we'll have time enough. Then, let them come!"

He fell back to the chair beside the table, nervous fingers tapping against the map, feet still rubbing at the floor, keyed to the highest tension, like a cat about to leap at its prey. "What time is it? Hm-m-m. No sound of the tank yet. What's delaying that fool? He should be here now. Hadn't we best get the machine outside?"

"It won't be necessary," Meyers assured him. "I'll simply run out a wire from the receiver to the tank when it arrives; the machine will work at a considerable distance, just as long as the subject is under some part of it."

"Good. What's delaying Immenhoff? He should have made it long ago. And where's the

courier I sent last night? Why didn't he report back? I—"

"Hee-yee! He's smart, Leader, just as I once was." The tittering voice came from the door of their quarters, and both men looked up to see the old lunatic standing there, running his fingers through his beard. "Oh, it was wonderful! Why walk all that long way back when he knew it made no difference where he was—the machine will bring him back, anyhow. Wonderful, don't you think it it was wonderful? You didn't tell him to walk back."

The Leader scowled, nodded. "Yes, I suppose it made no difference whether he came back or not. He could return with Immenhoff."

"Not he, not he! Not with Immenhoff!"

"Fool! Why not? And get out of here!"

But the lunatic was in no hurry to leave. He leaned against the doorway, snickering. "Immenhoff's dead—Immenhoff's dead. Wonderful! He's been dead a long time now. The Army of Occupation found him and he got killed. I remember it all now, how I found him all dead when I was the courier. So I didn't come back, because I was smart, and then I was back without walking. Wonderful, wonderful, wonderful! I remember everything now, don't I?"

"Immenhoff dead? Impossible!" The Leader was out of the chair, stalking toward the man, black rage on his face. "You're insane!"

"Hee! Isn't it wonderful? They always said I was and now I am. But Immenhoff's dead, and he won't come here, and there'll be no tanks. Oh, how wonderful, never to march at all, but just come here every day to eat. I like to eat . . . No, don't touch me. I'll shoot, I will. I remember this is a gun, and I'll shoot, and the bullet will explode with noise, lots of noise. Don't come near me." He centered the automatic squarely on the Leader's stomach, smirking gleefully as he watched his original retreat cautiously back toward the table.

"You're mad at me because I'm crazy—" A sudden effort of concentration sent the smirk away to be replaced by cunning. "You know I'm crazy now! I didn't want you to know, but I told you. How sad, how sad, isn't it sad? No, it isn't sad, it's wonderful still, and I'm going to kill you. That's what I wanted to remember. I'm going to kill you, Leader. Now isn't that nice that I'm going to kill you?"

Meyers sat back in another chair, watching the scene as he might have a stage play, wondering what the next move might be, but calmly aware that he had no part to play in the next few moments. Then he noticed the Leader's hand drop behind him and grope back on the table for the automatic there, and his curiosity was satisfied.

Obviously, the lunatic couldn't have killed his original.

The lunatic babbled on. "I remember my plan, Leader. I'll kill you, and then there won't be any you. And without you, there won't be any me. I'll never have to hunt for clothes, or keep from talking, or go crazy. I won't be at all, and it'll be wonderful. No more twenty years. Wonderful, isn't it wonderful? Hee-yee-yee! Oh, wonderful. But I like to eat, and dead men don't eat, do they? Do they? Too bad, too bad, but I had breakfast this morning, anyhow. I'm going to kill you the next time I say wonderful, Leader. I'm going to shoot, and there'll be noise, and you'll be dead. Wonder—"

His lips went on with the motion, even as the Leader's hand whipped out from behind him and the bullet exploded in his head with a sudden crash that split his skull like a melon and threw mangled bits of flesh out through the door, leaving half a face and a tattered old body to slump slowly toward the floor with a last spasmodic kick. With a wry face, the Fuehrer tossed the gun back on the table and rolled the dead figure outside the door with his foot.

Meyers collected the gun quietly, substituting his watch, face up where he could watch the minute hand. "That was yourself you shot, my Leader," he stated as the other turned back to the table.

"Not myself, a duplicate. What matter, he was useless, obviously, with his insane babble of Immenhoff's death. Or— The tank should have been here long before! But Immenhoff couldn't have been discovered!"

Meyers nodded. "He was—all the 'secret' depots were; I knew of it. And the body you just tossed outside wasn't merely a duplicate—it was yourself as you will inevitably be."

"You— Treason!" Ugly horror and the beginnings of personal fear spread across the Leader's face, twisting the scar and turning it livid. "For that—"

Meyers covered him with the automatic. "For that," he finished, "you'll remain seated, Leader, with your hands on the table in clear view. Oh, I have no intention of killing you, but I could stun you quite easily; I assure you, I'm an excellent shot."

"What do you want? The reward of the invaders?"

"Only the inevitable, Leader, only what will be because it has already been. Here!" Meyers tossed a small leather wallet onto the table with his left hand, flipping it open to the picture of a woman perhaps thirty-five years old. "What do you see there?"

"A damned Jewess!" The Leader's eyes had flicked to the picture and away, darting about the room and back to it.

"Quite so. Now, to you, a damned Jewess, Leader." Meyers replaced the wallet gently, his eyes cold. "Once though, to me, a lovely and understanding woman, interested in my work, busy about our home, a good mother to my children; there were two of them, a boy and a girl—more damned Jews to you, probably. We were happy then. I was about to become a full professor at Heidelberg, we had our friends, our life, our home. Some, of course, even then were filled with hatred toward the Jewish people, but we could stand all that. Can you guess what happened? Not hard, is it?"

"Some of your Youths. She'd gone to her father to stay with him, hoping it would all blow over and she could come back to me without her presence hurting me. They raided the shop one night, beat up her father, tossed her out of a third-story window, and made the children jump after her—mere sport, and patriotic sport! When I found her at the home of some friends, the children were dead and she was dying."

The Leader stirred again. "What did you expect? That we should coddle every Jew to our bosom and let them bespoil the Reich again? You were a traitor to your fatherland when you married her."

"So I found out. Two years in a concentration camp, my Leader, taught me that, well indeed. And it gave me time to think. No matter how much you beat a man down and make him grovel and live in filth, he still may be able to think, and his thoughts may still find you out—you should have thought of that. For two years, I thought about a certain field of mathematics, and at last I began to think about the thing instead of the symbols. And at last, when I'd groveled and humbled myself, sworn a thousandfold that I'd seen the light, and made myself something a decent man would spurn aside, they let me out again, ten years older for the two years there, and a hundred times wiser."

"So, I came finally to the little farm near Breseldorf, and I worked as I could, hoping that, somehow, a just God would so shape things that I could use my discovery. About the time I'd finished, you fled, and I almost gave up hope; then I saw that in your escape lay my chances. I found you, persuaded you to return, and here you are. It sounds simple enough now, but I wasn't sure until I saw the legion. What would happen if I turned you over to the Army of Occupation?"

"Eh?" The Leader had been watching the door, hoping for some distracting event, but his eyes now swung back to Meyers. "I don't know. Is that what you plan?"

"Napoleon was exiled; Wilhelm died in bed at Dorn. Are the leaders who cause the trouble ever punished, my Leader? I think not. Exile may

not be pleasant, but normally is not too hard a punishment—normal exile to another land. I have devised a slightly altered exile, and now I shall do nothing to you. What was—will be—and I'll be content to know that eventually you kill yourself, after you've gone insane." Meyers glanced at the watch on the table, and his eyes gleamed savagely for a second before the cool, impersonal manner returned.

"The time is almost up, my Leader. I was fair to you; I explained to the best of my ability the workings of my invention. But instead of science, you wanted magic; you expected me to create some pseudo-duplicate of yourself, yet leave the real self unaltered. You absorbed the word 'plenum' as an incantation, but gave no heed to the reality. Remember the example I gave—a piece of string looped back on itself? In front of you is a string from some peasant's dress; now, conceive that piece of string—it loops back, starts out again, and is again drawn back—it does not put forth new feelers that do the returning to base for it, but must come back by itself, and never gets beyond a certain distance from itself. The coins that you saw in the pile disappeared—not because I depressed a dummy switch, but because the two-minute interval was finished, and they were forced to return again to the previous two minutes."

Escape thoughts were obviously abandoned in the mind of the Leader now, and he was staring fixedly at Meyers while his hands played with the raveling from a peasant's garment, looping and unlooping it. "No," he said at last, and there was a tinge of awe and pleading in his voice, the beginning of tears in his eyes. "That is insane. Karl Meyers, you are a fool. Release me from this and even now, with all that has happened, you'll still find me a man who can reward his friends: release me, and still I'll reconquer the world, half of which shall be yours. Don't be a fool, Meyers."

Meyers grinned. "There's no release, Leader. How often must I tell you that what is now will surely be; you have already been on the wheel—you must continue. And—the time is almost here!"

He watched the tensing of the Fuehrer's muscles with complete calm, dropping the automatic back on his lap. Even as the Leader leaped from his chair in a frenzied effort and dashed toward him he made no move. There was no need. The minute hand of the watch reached a mark on the face, and the leaping figure of the world's most feared man was no longer there. Meyers was alone in the house, and alone in Bresseldorf.

He tossed the gun on the table, patting the pocket containing his wallet, and moved toward the dead figure outside the door. Soon, if the Leader had been right, the Army of Occupation would be here. Before then, he must destroy his machine.

One second he was dashing across the room toward the neck of Karl Meyers, the next, without any feeling of change, he was standing in the yard of the house of Meyers, near Bresseldorf, and ranging from him and behind him were rows of others. In his hands, which had been empty a second before, he clutched a rifle. At his side was belted one of the new-issue automatics. And before him, through the door of the house that had been Karl Meyers,' he could see himself coming forward, Meyers at a few paces behind.

For the moment there were no thoughts in his head, only an endless refrain that went: "I must obey my original implicitly; I must not cause trouble for my original or Karl Meyers; I must not speak to anyone unless one of those two commands. I must obey my original implicitly; I must not cause trouble—" By an effort, he stopped the march of the words in his head, but the force of them went on, an undercurrent to all his thinking, an endless and inescapable order that must be obeyed.

Beside him, those strange others who were himself waited expressionlessly while the original came out into the doorway and began to speak to them. "Soldiers of the Greater Reich that is to be. . . . Let us be merciless in avenging. . . . The fruits of victory. . . ." Victory! Yes, for Karl Meyers. For the man who stood there beside the original, a faint smile on his face, looking out slowly over the ranks of the legion.

"But I speak to myself. You who come after me know what is to be this day and in the days to come, so why should I tell you? And you know that my cause is just. The Jews, the Jew lovers—" The words of the original went mad-deningly on, words that were still fresh in his memory, words that he had spoken only twenty-four hours before.

And now, three dead Jews and a Jew lover had brought him to this. Somehow, he must stop this mad farce, cry out to the original that it was treason and madness, that it was far better to turn back to the guards in Switzerland, or to march forth toward the invaders. But the words were only a faint whisper, even to himself, and the all-powerful compulsion choked even the whisper off before he could finish it. He must not speak to anyone unless one of those two commanded.

Still the words went on. "Not victory in a decade, nor a year, but in a month! We shall go north and south and east and west! We shall show them that our fangs are not pulled; that those which we lost were but our milk teeth, now replaced by a second and harder growth!

"And for those who would have betrayed us, or bound us down in chains to feed the gold lust of the mad democracies, or denied us the room to live

which is rightfully ours—for those, we shall find a proper place. This time, for once and for all, there shall be an end to the evils that corrupt the earth—the Jews and the Bolsheviks, and their friends, and friends' friends. Germany shall emerge, purged and cleansed, a new and greater Reich, whose domain shall not be Europe, nor this hemisphere, but the world!

"Many of you have seen all this in the future from which you come, and all of you must be ready to reassure yourselves of it today, that the glory of it may fill your tomorrow. Now, we march against a few peasants. Tomorrow, after quartering in Bresseldorf, we shall be in the secret depot, where those who remain loyal shall be privileged to multiply and join us, and where we shall multiply all our armament ten-thousandfold! Into Bresseldorf, then, and if any of the peasants are disloyal, be merciless in removing the scum! Forward!"

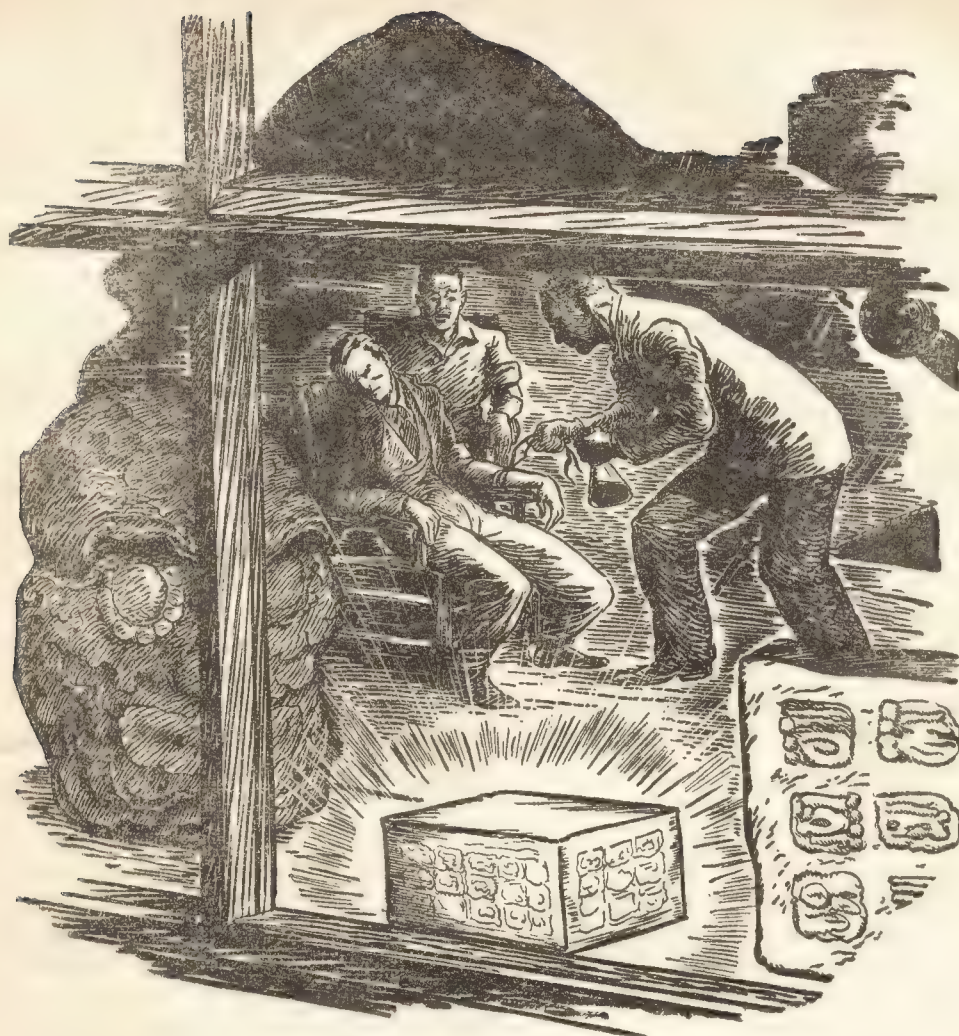
His blood was pounding with the mockery of it, and his hands were clutched on the rifle. Only one shot from the gun, and Karl Meyers would die. One quick move, too sudden to defeat, and he would be avenged. Yet, as he made the first effort toward lifting the rifle, the compulsion surged upward, drowning out all other orders of his mind. He must not cause trouble for his original or Karl Meyers!

He could feel the futile tears on his face as he stood there, and the mere knowledge of their futility was the hardest blow of all. Before him, his original was smiling at him and starting forward, to be checked by Meyers, and to swing back after a few words.

"Proceed to Bresseldorf, then, and we follow. Secure quarters for yourself and food, and a place for me and for Meyers; we stop there until I can send word to the depot during the night and extend my plans. To Bresseldorf!"

Against his will, his feet turned then with the others; out across the yard and into the road, and he was headed toward Bresseldorf. His eyes swept over the group, estimating them to be six or seven thousand in number; and that would mean twenty years, at one a day— Twenty years of marching to Bresseldorf, eating, sleeping, eating again, being back at the farm, hearing the original's speech, and marching to Bresseldorf. Finally—from far down the line, a titter from the oldest and filthiest reached him—finally that; madness, and death at the hands of himself, while Karl Meyers stood by, watching and gloating. He no longer doubted the truth of the scientist's statements; what had been, would be.

For twenty years! For more than seven thousand days, each the same day, each one step nearer madness. God!



TIME DREDGE

By Robert Arthur

● The German professor had a nice idea for making archeology a branch of Blitzkrieg technique—with the aid of a little tinkering with Time. His gadget fished up some strange specimens. One he never saw himself, though—

Illustrated by Kolliker

"Lordy!" Terry Blaine whistled with something almost like awe as Pat Finlay put the old gyro into an easy bank. "What country! What country!"

"Listen, dope!" Pat Finlay said into the speaking tube. "I can see the scenery for myself. What I want to know, do you see the Herr Professor anywhere around down there? Because

we've arrived. That little green patch is the landing field, and that oversize toadstool right under us is the prof's headquarters.

"That thing looking like a knife edge running through the jungle is the Maragara, and that foggy patch is the spray from the waterfall. According to the dope, the prof's lab is located just back from the falls. So that's got to be it. If mingled

with the scenery down there you see a large blond guy shooting at us, it's the prof. He's said to be unfriendly."

Terry Blaine leaned over the edge of the cockpit again and focused the binoculars upon the ground.

"I see something," he announced. "Two somethings, in fact. But they're not the prof. Not big enough. They're moving around close to the lab. Look like dogs."

Pat nodded and put the ship into a descending spiral, the great blades whooshing around softly over their heads.

"They are dogs," he answered. "Two of the biggest, nastiest, hungriest canines that ever took a bite out of a postman's pants. Which proves the prof's home. Not that he ever isn't, as far as I know. But it's going on half a year since anybody landed here and checked up on him, and he might have keeled over with fever or something in the meantime."

The autogyro headed earthward. Air currents, rushing up from the deep gorge of the Maragara River, bounced them a bit, but Pat Finlay jockeyed the old crate delicately, brought her out of the spiral, down over the treetops, and dropped them into tangled creepers and vines that had overgrown the small cleared space which was the landing field. They bounced and were still.

"Phooey," Terry Blaine muttered, looking at the tangled wheels as he climbed out and shucked his flying helmet, exposing a stand-up thatch of sunset-crimson hair. "We're going to have to use the old machetes before we leave this garden spot. Especially if we have a two-hundred-pound hunk of German scientist with us as unwilling baggage."

Pat freed himself from his belt and, making sure his holstered automatic was in place, clambered over the side of the cockpit. He tossed his flying helmet back into the plane, estimated the amount of sun they'd get on a three-hundred-yard walk, and decided that at this altitude the crew-cut crop of black hair that topped his bronzed features would be protection enough.

"Maybe we won't," he said, handing Terry a newly sharpened machete and taking one for himself, hacking a path for them through the lush creeper growth. "The old boy may be on the level. I certainly haven't seen any radio towers anywhere, and no one's caught any messages going out from this region, even though he has a small set he could use to call for supplies or help.

"And Lord knows, he's not the head of any revolutionary plots, hidden out here in the hills so far it's two weeks by burro to the nearest village. He can't be spying for his government, and I can't imagine what useful information he could be collecting. So maybe he's doing just what he announced he was going to—digging for pre-Inca ruins."

"Maybe," Terry Blaine agreed as they came out

into a trail of sorts and began following it uphill toward the increasing thunder of the falls. "But I'm darned if I see any ruins around."

"Oh, they're here," Pat said over his shoulder. "As a matter of fact—" He paused. They were passing what looked like a solid bank of vines twenty feet high. He poked with his machete at a space where the creeper growth had obviously been cut away not too long ago. A few cuts uncovered an area of rock several yards square. It was perfectly smooth, save for a panel of semi-idiographs cut into its jet surface. There was no crack to indicate that one rock met another—at least, not in the area that had been uncovered.

"There, for instance," Pat said as they went on again. "Pre-Inca, pre-Aztec, pre-Maya—pre-everything! Except for a few stretches of wall like that one, they're so old and ruined you can hardly tell they're anything. And they have never been dug, before good Professor Koch arrived to do his work in such strangely solitary splendor. So there's no telling what's in 'em.

"But you saw that wall—hundred-ton chunks of rock, and maybe bigger, fitted together smoother than machine polishing could do it. Heaven only knows who built it. There's a lot of theories. One is that the Incas and Mayas, highly civilized though they were, were only degenerate descendants of some still-older race that held out here."

"Well," Terry muttered dubiously as they picked their way up a rocky section of path toward the squat structure that dominated the top of the slope ahead of them, "even so, it's darned funny to find a German professor with money enough to move a completely equipped lab, with tons of electrical equipment, out here into the jungle by 'gyro, sending everybody away and settling down to work all by his lonely with only two hungry pooches for company.

"If he's digging, why does he need electrical equipment? Why doesn't he want any help? And if he's digging, where's he doing it? I covered the whole place with the glasses, coming down, and I didn't see a sign of any excavating."

"I've been kind of wondering about some of those questions myself ever since the government sent us down here," Pat answered soberly. "Ever since I heard about Professor Koch. Well, we'll learn the answers now, or know why. I'm glad the state department finally put pressure on to get us authorized to drop in on the prof and check up."

They had come out now well above the falls. From where they were, they could see only the high-rising veils of mist drifting upward above the awful drop of the river into the gorge below. The distant thunder of the falls made the ground tremble.

Ahead of them, in a barren, rocky space, was a

square, low building built of plywood. Chained to a stone beside the doorway were two tremendous police dogs that crouched, hackles up and low, menacing growls rumbling in their throats. Pat and Terry came to a pause, and while they stood there the door behind the dogs opened.

A great, bulking blond man two inches more than six feet in height, and so broad across the shoulders that his coat sleeves brushed the doorway, nodded to them.

"Good morning, gentlemen," Professor Frederick Koch said deeply, with only the faintest of accents. "I saw your plane and have been expecting you. Please to come in. There is lager in the ice chest."

Red-headed Terry Blaine raised a cold-dewed glass and looked bewilderedly over it at Pat. Pat shook his head.

"It's good beer," he said, noncommittally.

Terry swallowed and nodded.

"I thought you said he was unfriendly!" he remarked.

Pat drained his glass and set it down.

"Maybe a year of solitude has softened him up," he suggested. "He's looking a bit haggard. You can see he's lost weight by the way his clothes hang."

"I'd say," Terry suggested, looking around them at the big, cool, well-furnished room, "that he's been working hard. But at what?"

"He's certainly been working," Pat agreed. "Look at those shelves. Those are tools, utensils, tablets of the very oldest pre-Inca type. Lord, I wish I knew more about the subject than I do. You know, most of those things are solid gold!"

He and Terry strolled over to the shelves in the corner of the room, which held a motley array of small objects—battered jugs and jars, misshapen tablets, small figurines, all of them so worn by time and long burial as to be hardly better than chunks of metal.

"Examining my finds?" Professor Koch's deep voice whirled them about. The big man stood in the doorway, a tray holding unopened bottles in his hands. "Ah, yes—they are quite interesting. As you say, many are of gold. Their intrinsic value is high; their value as relics of the past beyond computation."

He came forward and set the tray down. A little guiltily, Pat and Terry resumed their seats and allowed him to open fresh bottles, refill their glasses.

"We were wondering where you excavated them," Pat said blandly then. "We hadn't seen any sign of digging, so we thought you perhaps had abandoned your plans to explore this mound underneath you."

Koch seated himself, deliberately removed the top from a beer bottle with his thumb and fore-

finger, and poured the contents into a glass.

"You thought that perhaps I was not here to excavate at all," he corrected coolly. "You imagined my presence might have some connection with the present troubled world situation, and you are here to check on me."

Terry Blaine choked on his beer, but Pat nodded.

"That's true, professor," he agreed. "The—er—troubled situation, as you call it, is having certain repercussions down here. There was a plot to overthrow the government uncovered only last week, and"—he spread his hands wide—"the local politicians are uneasy. It is understandable."

"Ach yes, understandable," the big man muttered, shrugging. "That is why I make you welcome. I wish you to be satisfied. Indeed, I am happy you have come. I will show you where I dig, and it is possible you may be able to assist me in a delicate experiment I have wished to try."

Pat and Terry exchanged glances.

"Fine!" Pat said. "We'll be very much interested to see the shaft your finds are coming from. I don't know much about them, but I'd say they are unique."

"They are." The big blond man fixed an unfathomable gaze on him. "And I dig for them in a unique way. You shall see." He got to his feet abruptly. "Come."

Exchanging glances again, Pat and Terry rose to follow him. Terry Blaine clutched quickly at his chair back, assailed by dizziness. And Pat Finlay, taking a step forward, stumbled, his feet leaden.

"Doped!" Pat yelled then, as realization got through to his numbed brain. "Damn you, you've drugged us!"

He tugged at his holstered automatic, and his fingers slipped off the rough butt. He stared at the big man, and his face was tight with fury at the ease with which they'd been tricked.

"You—" He choked, his voice sounding far away in his own ears. "You—"

Then he staggered, and almost side by side, he and Terry sagged to the floor. Professor Frederick Koch stood and watched them fall, unsmiling.

When Pat Finlay opened his eyes his head was clear enough, but he felt curiously weak and tired. He was half slumped in a plain wooden armchair, and his wrists and ankles were securely bound to it. Beside him, Terry, bound in another chair, was watching him. Pat groaned, tested his bonds, then slumped back.

"Oh, lordy," he moaned, "I feel terrible. And it's not just my pride that's hurt. Whatever he gave us, I'm allergic to it. Do you feel as weak as I do?"

Terry nodded, his jaws set.

"Like a sick kitten," he agreed. "But it's not

because of the dope. Our hospitable host has drained off about a quart of blood from each of us!"

Pat's eyes opened wide.

"He did?" he exploded. Then he sighed. "I feel so all-gone I can't even lose my temper. What the devil for?"

Terry Blaine shook his head.

"Dunno. He must have robbed you first. I came to just as he was removing some tubing from your arm, and he had a bottle that must have held a quart of blood he'd taken from you. I just sat and watched. I couldn't even swear at him."

"Damn," said Pat softly. "Dope in the beer. We should have been on the watch—but we saw him open it ourselves."

"Probably he had a couple of bottles spiked with knockout powders on ice all along," Terry Blaine muttered. "That's German efficiency for you. Thinks of everything. Now what comes? Have you taken in this room yet?"

Pat Finlay looked around him. The room was bigger than the living room. In the center of it was a square shaft, six feet wide, which extended down as far as their line of vision permitted them to see. Supports held a platform directly above it, and on that platform was something like X-ray machinery. A swivel stool placed before a panel containing a dozen controls was so arranged that anyone sitting on it could turn either to watch the dials or peer down into the shaft below. And from beneath the platform a deep-blue light beamed down into the darkness of the hole.

A heavy cable ran across the floor and through the wall to the outside. Along the wall, beside a window that looked out toward precipitous cliffs across the foaming Maragara, there were shelves containing small objects that had a bright glitter of crystal and gold, quite unlike the battered bowls and vases in the living room. He didn't recognize any of them, though several looked like small gold tablets, and one was a gold box with a crystal end, similar in size and shape to a camera.

"Damn!" he muttered. "I wish I knew what the prof is up to."

"I wish," Terry Blaine growled, "that I knew how we are going to get out of here. These knots are tight. Even if we weren't about as strong as midgets right now, we'd play the devil getting loose. And I have a hunch Professor Frederick Koch isn't going to be in any hurry about letting us check out of this merry little tourist camp."

Pat didn't answer. He was tugging at the arms of the chair, to which his wrists were bound. Then, fighting off dizziness, he peered down at the lashings which held his ankles to the chair legs.

"Listen, Terry," he said, under his breath, "I haven't got the gimp in me to try it now, but I think I can shake out of this nifty little hemp

number when I can work up some strength. These chair arms are pegged down to the supporting pieces, and the right one has come unstuck. The left gives a little. If I can work it free, I can wrench them up and slide the rope forward and off.

"And my legs are tied below the rungs. So once I get my hands free, I lift the chair out of the lashings."

"No such luck here," Terry mourned, exerting pressure in vain on his own bindings. "I'm stuck. But if you— Here he comes."

Professor Frederick Koch strode into the room. He bore a white enamel tray holding an assortment of sealed jars, syringes, medical sponges, and instruments.

The big blond man placed the tray on a table beside the shaft in the floor and turned to survey his prisoners.

"Ach, you have recovered," he said in apparent good humor. "Good. Then you shall watch me excavate for that which will astonish the world—and more important, make the fatherland the master of the globe."

Pat and Terry looked at each other out of the corners of their eyes.

"Paranoia," Terry whispered. "He's as nutty as an old Ford."

But the German's hearing was acute. He looked at the redhead, and some of his good humor vanished.

"So?" he remarked coldly. "He is mad, the professor, *hein?* In fiction the professor is always mad. The man who plucks forth from the dust of the past the secrets of the ancients, he must be crazy, then. Great achievements are impossible to the sane."

His scorn was so impersonal that doubt crept into Pat Finlay's eyes. He stared again at the shelves of small glittering objects, and the doubt deepened.

Ignoring them, Koch plugged into a wall socket an electric cord running to a heater coil on the tray of instruments. Then he mounted the platform over the pit, threw a switch that caused a deep-green streak to leap to life in the blue cone of radiance pouring down into the excavation, and began to adjust vernier dials carefully.

He moved the small knobs delicately for minutes, sweat pouring down his face in his concentration, then relaxed, looking pleased.

"An animal is in the field," he remarked, turning and looking down at them. "A sacrifice, it is probable. Draw up your chairs, gentlemen. Professor Koch, his show is about to begin. The mad scientist, he will now demonstrate his folly by delving into the dead past in a manner unique. He will bring forth relics and life—life!—from the



past, not with a pick and shovel, but with a dredge. A dredge to probe *time*."

Pat Finlay and Terry Blaine gaped at him. Then abruptly Pat accepted the invitation. By pressing his feet against the floor he was able to scrape his chair forward far enough to see down into the pit. Terry inched forward beside him, and together they stared down into a perfectly empty shaft not more than ten feet deep. A small wooden ladder reached to the bottom of it; otherwise there was nothing to be seen except hard-packed earth, faintly phosphorescent under the steady beat of the blue-green beam.

"There is nothing there, eh, gentlemen?" Professor Koch said in high good humor. "As empty as a magician's sleeve, *hein?* But you are wrong. In that space there are many things. Countless objects, and creatures, too. Scattered through all the millennia since the Earth's creation are objects occupying that space. Objects which the good Professor Koch is dredging for, to bring up out of the misty vastnesses of time into the light of the present."

"Golly!" Terry Blaine said aloud. "He means it!"

"You are aware, gentlemen," Koch went on, deliberately adopting the air of the lecturer to none-too-bright students, "of the concept of simultaneous existence of time, past, present, and future? Then you will not doubt me when I say that every object which has ever occupied this space beneath me is still there, in the past. Some of them were there still, in the present, when I dug this pit with my own hands a few months ago.

"Those battered objects you saw in the other room, they came from this hole. With pick and shovel I dug into the past and found them. But the past from which they came—pah!—it is no better than yesterday. Millennia beyond that I am dredging into, into the time of the great race of ancients from whom descended the Incas, the Mayas, the lost Atlanteans.

"Here beneath us even now they live and breathe—in the past. They were scientists whose science was not ours. Machinery they may not have known—flying machines, cannon, electric ice

boxes; pah—what need had they of them? But science they had—how else did they move stones a thousand tons in weight, machine them to a thousandth of an inch, fit them together so that even today no force of nature has been able to penetrate between them?

"And that science, those powers from the past, Professor Koch is going to dredge them, for the use of the fatherland in her hour of need. Those powers—and the men who wielded them!"

He stared at them steadily for a moment, his bearing completely calm.

"I would, if I had the choice," he said a little harshly, "have the results of my work belong to the whole world. But that cannot be. My country needs every advantage she can gain to win victory over her enemies—and though I am a scientist, I am first of all a German."

Then he swung about, and with crisp decision gave his attention to verniers and rheostats. A faint, protesting whine of power filled the room, and the green-blue ray pouring into the pit had the intense brilliance of an arc light.

"A cat, I think," Professor Koch said to them, but not looking at them. "The outline is of an animal, and the size is right for a cat, or small dog. I am going to bring it through. It will not live, but I shall show you—"

Abruptly he threw open a switch. The blinding beam died at once to its original soft-blue radiance. The big man swung about, wiping his brow, and peered into the pit. He had no need to speak. Pat and Terry could see plainly the small form lying there on the packed earth, where a minute before had been nothing—the body of a jungle cat that might have been an ocelot.

Terry Blaine let out a long breath as Koch swung down the ladder and came up with the ocelot.

"Golly!" he said. "He did it!"

"Look!" Koch held the cat form out to Pat. "See the collar around its neck. Gold links, engraved in an idiograph form of writing of which the Inca and Mayan writing is a highly debased form. A sacrificial victim, I believe, for I think they look upon me—at least upon the force that I control, which from time to time whisks objects and creatures from their midst—as a god.

"From time to time they offer me a human being. I have taken only one, and he died almost immediately, like this cat. No, it is not quite dead. But I cannot revive it. The nervous system is damaged, the blood affected. It will die, as did he. But it still breathes!"

Pat and Terry stared. The ocelot was indeed breathing, the light, irregular breathing that portends approaching death.

"That is why," Koch said, abruptly tossing the body of the cat to one side, "I was glad to see you

today, although you arrived to spy. For now I shall bring forth another of these men of the past, and another, and another. And with your help, even though not willing, they shall live. And even if nothing else, I shall learn from them the secret of—this."

Koch strode to the shelves beside the window, took up the small, square, cameralike box. He was too far away for them to make out any details concerning it, beyond the mere facts of its size, golden nature, and the lenslike appearance of the crystalline portion.

"I have dredged up many things from the past," he told them, "besides animals. Tablets on which prayers were written to me—I have learned to read them. Charms, amulets, jewels beyond price—and this. This, if their science has nothing more to offer, will be enough."

There was a note almost of regret in his voice. He threw open the window and stood beside it.

"You can see through this window, *nein?*" he asked. "You can see—yes, that rock surmounting the mound this side of the trees. Shall we say it weighs two hundred tons? Watch!"

He turned, his body hiding the golden box. Then Terry Blaine gave an audible gasp and Pat Finlay stiffened against his lashings.

The rock, a hundred yards beyond the building, was rising into the air.

Koch moved slightly, and the rock shot higher, until it floated unsupported forty feet off the ground. Koch swayed slightly, and the rock glided about in a twenty-foot ellipse. Then it dropped with a crash onto the mound beneath it, splintering into fragments a score of smaller boulders.

Koch replaced the box on the shelf.

"If the rock had been a bomb—" he muttered, half to himself. Then he shrugged. "That explains," he remarked, "how the ancients moved thousand-ton rocks and placed them with the precision of a jeweler. What the power is, I do not know. I do not dare pry into the box that contains it lest I ruin what lies inside, or kill myself. Both it and I are too important to the fatherland to risk in such a manner. I am not even sure there is a scientist great enough in the world to solve the secret within that small gold box.

"But it is not necessary there should be. For the men who made that box, they I can reach."

Deliberately, Professor Koch mounted his platform again, and ignoring Pat and Terry now, once more turned to the controls of his apparatus.

The blue-green beam lancing into the pit grew in intensity. Minute after minute Koch bent over the dials. Half an hour passed, and perhaps more. Pat and Terry could see nothing, for the bright light bubbled and seethed in the shaft like charged water. But abruptly Koch gave an exclamation.

"A man!" he said. "It can be nothing else. Now we will see! *Lieber Gott*, we will see—"

Briefly the beam sprang into unbearable intensity, then died away. And staring down into the pit with eyes that throbbed and ached from the brilliance of the light, Terry Blaine and Pat Finlay blinked and gaped. There was a body lying upon the hard-packed earth. The body of a man—

"No!" Pat said sharply. "*It's a girl!*"

Koch said something in German and abandoned the platform to plunge down the ladder. He scooped up the girl, slung her over his shoulder, and clambered back to the floor level.

He stretched the unconscious girl upon the floor and snatched up the medical paraphernalia he had in readiness. The girl was slender, with long, dark hair falling about her shoulders, held in place by a gold-and-jeweled circlet about her brows. She wore only a knee-length skirt of pale-green linen, a harness of fine leather to which was sewed alternate gold disks and jewels, and soft leather sandals fastened to her ankles with a webbing of inlaid straps.

Her skin was a golden-brown tone. Her hair jet-black and fine. Her features, save for the golden skin color, almost Grecian.

She was breathing very shallowly and with difficulty. Koch filled a large hypodermic with colorless fluid and injected it directly into a vein. He followed this with a second injection from a smaller needle, apparently into the heart, and at once the girl's breathing became stronger.

"A blood transfusion and adrenalin shot," Pat murmured to Terry. "Only, because he wouldn't have time to check blood types, he's using the plasma of the blood he milked us of."

"If it'll save *her*, he can have a gallon of mine," Terry remarked as the girl's eyelids fluttered, then opened. She looked up at Professor Koch, her eyes large and frightened. Then, weakly, she attempted to rise.

Koch put an arm under her shoulders and lifted her. She tried to fall on her knees before him, murmuring something in a low voice, a cadence of liquid syllables. He prevented her, leading her instead to an armchair and bringing her a glass of milky liquid. She drank. Color came back to her cheeks. She looked at him fearfully, and for the first time Koch took time to study her.

Then he frowned a little, but the look he gave Pat and Terry was exultant.

"Now will you believe?" he challenged. "From the unthinkable past this pretty creature has come. *Ja!* Unfortunately, she is neither scientist nor learned priest. She is, I think, an altar victim, offered to me—and I have taken her. But where there was a victim, I shall find others more learned and important. The setting remains. I have but

to expand the cone of the beam a trifle."

He brought the girl a square of smooth gold from the shelf and a bronze stylus, indicating she should write on it. But the girl shook her head, indicating that she did not know how to write; nor, after Koch had scratched a few characters on the gold, read either.

Koch shrugged.

"A pretty victim to placate the unknown god," he muttered to himself, mounting the platform again. "But she lives, and my next cast will bring up a bigger fish. Surely the head priest himself must have officiated. It will be a surprise to him to find himself taken, as well as his offering!"

Koch chuckled and bent over his instrument panel. Once again corruscating light flooded the pit. But Pat and Terry were looking at the girl, who, taking her situation with admirable composure now, returned their gaze shyly but interestedly.

"Bet she thinks we're gods, too," Terry remarked.

"Lord, she's lovely!" Pat muttered.

"Wonder if she has a friend?" Terry Blaine grinned. "If she has, maybe Koch will get her for me—this one seems to have eyes only for you. Maybe my red hair scares her. You know, I wouldn't have minded living back there myself, if all the girls were like her."

There was no answering grin on Pat's face.

"This is serious," he told Terry in a low tone. "He's proved he can do it. We saw that gadget work. With bombs instead of rocks—well—And he may get something more, so—"

He left the sentence unfinished. Terry nodded.

"But how can we stop him?" he asked.

"I don't know," Pat admitted. "But I've got a little strength back, and this left chair arm is coming loose. I'll have it in a couple of minutes. I won't have time to free you, though. I'll have to take my chance on wrecking his damned apparatus and—"

"Ah!" Koch exclaimed suddenly, and swung down from the platform as the light died down. Pat broke off and stared downward. There was another figure on the floor of the pit, and this time it was a man—a tall man, with an arrogant countenance, garbed in a pale-red robe heavy with jewels, and wearing a belt at which something flashed and glittered.

Koch lifted him, brought him out, puffing with the effort. He stretched the unconscious man upon the floor and repeated the process of revivification. The girl watched with wide eyes. Pat Finlay was tugging at the chair arm, cursing softly to himself.

It would not come. Sweat stood out on his brow. It gave a little, but not enough. Koch turned, and he desisted for a moment. But the big,

blond man's attention was centered on the tall, arrogant-featured figure on the floor, who was blinking and mumbling.

The man frowned up at Koch with eyes that were puzzled, but hard and calculating. Then slowly he sat up. He saw the girl and shot words at her in a quick-flowing cadence, which she answered haltingly. Koch waved him to silence and presented the golden tablet, on which he had scratched something.

The priest, if that was what he was, stared at it. Then, squatting cross-legged on the floor, he cut a message beneath it. Koch took the tablet, studied it, frowning, for a long minute. Then, more slowly, he scrawled again, a scrawl which the priest in turn answered.

When he had deciphered the last message, Koch turned to Pat and Terry. His voice was triumphant, but there was an echo of weariness in it.

"It is not all clear," he told them. "But I can read enough. He is a priest and scientist both. The girl is a sacrificial victim to propitiate the gods—myself—who are angry and are shaking the land with earthquakes. As a scientist, our newly arrived friend from the past does not believe in gods, though he caters to the people's belief in them. He is much surprised to be here. But he is a clever man, and he will work with me. I have promised him power." Koch shrugged. "It is a coin that is current in all times."

He turned back to the waiting priest, whose eyes were roving over the room, scratched again on the tablet. The man glanced at the message, shrugged, and rose. Koch brought him the golden power box which he had demonstrated for Pat and Terry. The hawk-nosed priest took it almost with contempt, made a gesture with his hand that suggested as eloquently as words that it was hardly more than a toy, and strode to the open window with it. From his belt he took two small cylinders and affixed them to inconspicuous projections on the side of the box. A third, larger cylinder that hung about his neck on a golden chain he affixed to the crystalline end. Then, his body hiding the box from Pat and Terry, he repeated the demonstration Koch had made, but this time on a stupendous scale.

A quarter of a mile away, black cliffs dripping with wet from the spray of the falls, towered above the gorge of the Maragara. As Pat and Terry—and Koch, also, no less avidly—watched, the topmost pinnacle of a tower of rock well beyond the river shivered, tilted, slid from its base, started to fall, and was caught by unseen power. Slowly it righted itself, a jagged stalactite that must have weighed well over a thousand tons, and began moving swiftly toward them.

It came in a great rushing arc, like a spear hurled by the Titans, approached within a hundred yards, swerved abruptly and rose to the height

of a thousand feet. Then, the power upholding it released, it fell with a roaring through the air, crashed into the gorge of the river with a violence that sent spray splashing even over the laboratory, and was gone in a crashing and grinding of rock that echoed for long seconds afterward.

While Professor Koch still stood, staring at the point where the rock had fallen, Pat acted.

"I've got it now!" he told Terry sharply between his teeth. "I'm going to wreck the machine first. Then get Koch's gun if I can. I hate to do it, but— Anyway, wish me luck. And, if that's the way it turns out, so long."

He lifted with his wrists; the chair arms came free. He slid his hands forward, pulling the ropes free. Then quietly he stood up, reached behind him, lifted the chair so that the legs slid from the coils of rope binding them to his ankles, and was free.

Koch and the priest were still turned away. Pat Finlay, fighting off weakness, tiptoed forward. The strange, lovely girl was watching him, but she made no outcry. He gained the short flight of steps leading to the platform, went up them. Then on the last step his weakness betrayed him, and he stumbled.

Koch wheeled with a guttural exclamation. Pat, cursing to himself, leaped forward and, lacking tools, began to smash at the dials and controls of the electrical apparatus with his fists. Some of them twisted; others broke loose. He pulled free what wires he could reach and kicked at the exposed portions of the machinery with his boots.

He had damaged the thing; how much he could not tell, but not nearly enough, when Koch, grunting, came rushing up the steps.

Pat was big, and normally powerful enough to have handled even the massive scientist. But not after having had a pint or two of blood taken from him. Koch grappled with him, and he could not break free. Pat grunted, found a foothold, and using his leg muscles, shoved. They both went over then, Koch falling backward down the stairs, and Pat hurtling over his head. Pat saw the floor coming up at him. Then the breath was slammed out of him, and blackness had him.

When dizzy consciousness returned to him again, Pat found himself lying on the floor beside the girl, his wrists and ankles once more bound, his head throbbing. There was a taste of blood in his mouth, and one eye was swollen almost shut.

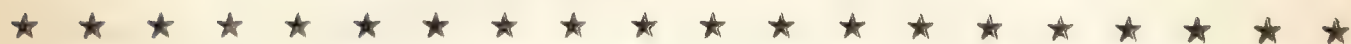
He looked up. Koch, in concentrated silence, was working with pliers, screwdriver, and electrical soldering iron on his apparatus. The sweat poured down his face, and his blond hair was matted and damp.

Beside Pat, the golden-skinned girl leaned over and touched his lips with a wisp of scarf. She



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wiped blood from his mouth, saying something in a soft, murmuring tongue, her eyes large and pitying. The words were unintelligible, but the sense was plain enough. Women have said the same things while tending men's hurts since history began.

"Thanks, gorgeous," Pat Finlay said painfully, and turned his head enough to see Terry.

"Good try, Pat," the redhead said. "Almost, but not quite. Luck wasn't on our side today. Guess we didn't eat our spinach. You've been out almost an hour. Koch's been working all that time, and it looks like he's got the dingus fixed again."

Indeed, the blond man, putting down his tools, had turned a switch. The blue-green beam stabbed into the pit as brilliantly as before. He moved his dials with delicate care, and something like relief marked his features as, mopping his brow, he turned to look down at Pat Finlay.

"I do not blame you, my friend," he said tiredly. "You tried—but you failed. You have inconvenienced me, nothing more. Out of the ancient days will still come the powers that will make the fatherland supreme, that will doom all her enemies. What you have seen is as nothing to what yet remains."

Pat struggled awkwardly to a sitting position, but did not answer. There was no possible reply. Pat sighed, his bones feeling like sticks of spaghetti, and leaned sideways against the golden girl's chair.

"*Donnerwetter!*" the German said beneath his breath, and looked down to meet Pat's gaze. He shrugged.

"I said you had inconvenienced me," he sighed. "And you have—seriously. But not fatally. I have lost my setting, and the calculating dial which gave me a measure of the distance into the past which my dredge was reaching is broken beyond any but lengthy repair. Whether it is set for but yesterday, or for the dawn of creation, I cannot tell, and I shall have to find again the time I desire by laborious trial and error. But it is only a detail. It is not fatal."

He wiped his face again, and once more leaned over his controls. Pat closed his eyes for a moment and gave himself up to the pleasure of being ministered to by a girl like this one. A faint perfume from her skin, delicate and tantalizing, reached his nostrils. Her fingers, as they touched his face, were soft and cool. He opened his eyes again and smiled into the violet eyes that were looking at him with such concern.

"I could go for you, gorgeous," he murmured. "If things had turned out different, I would have, too. You and I might have— But anyway, I can kiss you."

He leaned forward, touched his lips to the girl's warm mouth before she understood his intention. She drew back, color flooding her face and bosom.

Then she smiled shyly, and leaned forward as if inviting him to repeat the act.

Pat was about to when Koch gave a curious, exulting grunt.

"Something in the field!" he exclaimed aloud. "Yes, by the size and shape, a man. It may be the same period—"

The blue-green beam flared into unbearable brilliance. And then, with an odd, half-strangled cry, Koch half rose from his stool. He looked down at them, his face purpling, and his mouth opened and closed as if he was trying to speak. But only incoherent sounds came out. His arms flailed as if seeking the controls, but missed them. Then, as if in the grip of something invisible, he leaned over, and still struggling to retain his balance, plunged into the light-flooded shaft.

They heard him strike with a solid, ugly thud. Then abruptly the brilliant beam winked out. And with its going, giddiness unendurable shook Pat Finlay. The whole room seemed to quiver and blur. The girl so close to him, her eyes questioning and frightened, became a shimmery mistiness. Nausea gripped him, and ague shook him. He closed his eyes against them desperately—and then he was lying on the floor and Terry was bending over him, shaking him.

Terry was free. Pat sat up hastily and found that he was unbound, too. The nausea and weakness had quite left him. He scrambled to his feet, and his jaw dropped in dismay.

They were alone in the room. There was no girl. No hawk-nosed priest. No array of glittering objects on the shelves by the window.

And the time dredge, on the platform above them, seemed to have been dismantled. The control panel was not in place. Wires emerged from its interior, unconnected.

"But—" Pat gulped. "But—"

Terry shook his head.

"I don't know a thing," he said. "I felt the same as you must have—dizzy and sick. I closed my eyes—or fainted, I don't know which—and when I opened them, this is how things were. I wasn't tied, and neither were you."

Pat pointed, and could not keep his hand from shaking.

"Look."

In the bottom of the pit in the center of the room there was a body. Between them they lifted it out. It was the body of Professor Frederick Koch, clad in dirt-stained working clothes. Beneath the body was a pick. They were forced to work gingerly, for the corpse was not at all in good condition.

For a long moment they surveyed the remains of the scientist. Then, wordlessly, they looked at each other.

"He's been dead," Pat said at last, "at least three

months. I would say he died while engaged in digging the shaft."

His voice was perfectly calm, almost detached. It had to be, in order to utter the words at all.

Terry nodded.

"There's dust in here," he said harshly. "About three months' deposit of it. But Pat, before I go bats, tell me—"

"Let's get out of here first," Pat said abruptly. "Back to the plane."

Terry followed him out. Outside, chained to the building, were the skeletons of two dogs. Ants, or animals, had picked the bones clean.

"Starved to death," Pat said shortly, and strode down the path at such a pace that Terry, following, had no chance to ask questions until they reached the waiting autogyro.

"Listen," Pat Finlay said then, before Terry could burst out with any of the questions that were piling up on top of each other in his mind. "Let's take as an hypothesis the fact that Professor Frederick Koch actually constructed an apparatus that would bring objects and people out of the past. Let's further take the hypothesis that we saw him do it. That he had actual objects to prove he had done it."

"O. K.," Terry Blaine agreed. "Go on."

"So," Pat went on, choosing his words with care, "he made us prisoners lest we interfere with his plans, which were to acquire powers from the past to enable his country to win the present war. I escaped and made an effort to damage his machine. I failed—but I did make useless an important control which told him just how far into the past he was probing."

"I won't," Terry agreed with some irony, "argue any of that."

"Having tied me up again," Pat went on slowly, "Koch set about finding again the particular time for which the dredge had previously been set. But he couldn't tell when he had it. He was forced to guess. His instruments told him, however, that he had caught a human being in his field, at some past time of which he was not sure. He proceeded to draw—or try to draw—that human being out of the past into the present."

"I'll still check with you," Terry agreed, scowling. "Then what?"

"We know," Pat told him, staring into his eyes, "that due to the violent effect of the force field upon them, anything living brought out of the past quickly died unless attended to immediately. I haven't any doubt the strength of the field directly varied in proportion to the distance into the past Koch was reaching for with it. So suppose that the setting of the controls was badly askew. Suppose that the individual whom Koch last caught in his field really was very close in

time—but that Koch, thinking he was in the far distant past, turned up the power high accordingly. I rather think that that individual would have been killed before ever being brought through, don't you?"

"Well—yes," Terry agreed. "So?"

"So," Pat said soberly, "suppose that individual Professor Koch caught in the recent past was—himself."

Terry's jaw dropped.

"He . . . he drew *himself* out of the past?" he choked. "Or, anyway, tried to, and the strength of the field killed him as it brought him through? But then there would have been two of him, one living and one dead, and—"

Pat was shaking his head.

"No," he said quietly. "Because if the beam caught him three months ago, at a moment when he was finishing off that pit, that was the moment when he ceased to exist. Three months ago. So—"

"When we got here, he'd been dead three months?" Terry goggled at him. "Say it easy, say it slow. Are you trying to tell me that, since Professor Koch must have died three months before we arrived here, *what we went through today didn't ever happen?*"

Pat Finlay spread his hands.

"Can you give me any other logical answer?"

The redhead started to speak, stopped, started again, then stopped once more. At last he said, dazedly:

"I don't care. Even if it doesn't add up by logic, or metaphysics, or any other system of counting, we saw—"

"But it couldn't have happened"—Pat's eyes were somber—"for one very simple reason, to overlook a lot of others not so simple. The machine isn't finished. It obviously wasn't completed when he died. It isn't completed now."

"But the machine had to be completed to kill him!" Terry exploded. "But if it was completed—by him—and then acted so as to kill him at a time before he *had* completed it—"

He broke off and held his head between his hands.

"Let's go," he said. "Back to civilization. I'm only getting dizzy all the time. All right, it never happened. We arrived and found him dead. That's all there was to it. That's what we'll believe tomorrow, anyway. Nothing happened."

Pat climbed slowly into the cockpit and put on his flying helmet. On his lips there was still the taste of a kiss, warm and soft and lingering. In his nostrils there was still a little, heady scent. But he nodded.

"That's it," he said heavily. "Nothing happened. It couldn't have. He died three months ago."

THE END.

MUDMAN

By M. Krulfeld

● A genuine pioneer has to be pretty much insane, for no entirely normal man would be able to take—and enjoy—the 10-to-1 odds against survival pioneering means.

Illustrated by Kramer

The *Galapagos* sloshed over the green-black muck of Venus at a good fifty-mile clip, the wide mud plates of her two endless treads slapping ceaselessly at the hot, steaming mud which made up nine-tenths of the planet. The body of her, a blunt-nosed thing seven feet high and twenty long, was poised on slender struts of metal above the rolling treads. The solitary glare of her forward lights made a lonely gash in the waste of blind gray mist around her.

Inside her, the raw glare of the lights beat down upon Johnny Bishop. Lean, tough muscles in his naked shoulders moved smoothly as he gripped the control wheel. Slim and rather small, his eyes were hard under a shock of pale-blond hair, and his mouth set as he kept the mudslapper on her course.

Behind him stood Kelly, a big man, black with the matted hair on great back and shoulders and chest. Kelly's breathing was easy and quiet, hardly audible above the single musical note which came from the direction finder of the radio, but Johnny Bishop was well aware of him. To the mudmen of Venus, that tough human breed which in competition with the equally tough Mercurians scours the trackless muck for *makla* pearls, Kelly might be a notable individual, but to Johnny Bishop, space blaster shanghaied at York City, he was only a malevolent slave driver.

"On course! On course!" Kelly said, the boom of his voice filling the narrow quarters like the sound of some heavy drum. "This is a mudslapper, space bum! You have to keep a grip on her, not just sit back the way you do on an ether blaster!"

Stiffening, Bishop gave a vicious twist to the wheel. Gears ground together as one of the treads speeded up and the *Galapagos* veered back on course. "Don't call me that again!" he said through set teeth.

Kelly laughed. "I still don't know why I picked you up out of that bunch of drunken bums in Red-eye's place, Bishop, but I'll make a mudman out of

you yet. One of the first things you'll learn is that I'm boss of the *Galapagos*, whether we're cruising or dredging for *makla*. I'll call you what I please."

"I wasn't drunk. Redeye doped me. Anyway, don't call me that again!"

"You're getting excited—and forgetful! Mind your course, space bum!" Kelly boomed.

Bishop's hands left the wheel. He whipped around. His fist shot out with all the strength of his wiry body behind it.

He struck Kelly, fair in the black-bearded face.

The big man shook his head and stepped back. He would have made two of Bishop, and he was all solid muscle. The space blaster counted a little on his speed to offset that superiority.

Then Kelly's big hands lashed out, precise, cunning, swift as the striking of enraged snakes. The first blow caught Bishop glancingly. At the second, something snapped blackly in his brain and he fell, senseless.

When he sat up groggily on the floor Kelly was in the control seat. There was something tense in the taut curve of the great hairy back. One hand gripped the wheel. The other was on the knob of the radio finder, and the musical note rang out sharply.

It snapped off and the flat, clear, mechanical wording of a voice tape came strongly: "This is Fixed Point Eighty-three, magnetic and radio-wave station of the Venus Geographical Bureau." The voice stopped and the clear, dominant, musical note sounded again.

Kelly was staring at the decibel gauge which gave the approximate distance from the station, working on the intensity of the musical impulse. Something about him—

"What's wrong, Kelly? We're on the course!" Bishop said, getting dizzily to his feet.

Kelly looked at him. "Are we? I'm a mudman. The feel of the mud here isn't what it ought to be, if the course were right. And I've heard the voice



tape of Eighty-three a hundred times. This time—it sounds different! Changed!”

“Mercurians?” Johnny Bishop said hoarsely.

“Maybe. But they signed the first treaty with the Earth colonists only last week. This is beyond their line. The Mercurians may look like half-octopuses in pressure suits, but they usually stick to their word. I wish I had another mudman here with me instead of you. Something’s damned wrong!”

“Can I—”

“Nope. You’re useless in an emergency,” Kelly said with brutal candor. “If we’re off the course—and I’m damned sure we are—then you might wreck us by running into a spirocyst. And if a mudsnake showed up—”

“Mudsnake! Belly gas!”

Kelly nodded grimly. “That only proves it! I suppose you don’t believe in any snake that could swallow the *Galapagos* like a piece of butter? You’ll learn!”

Bishop’s lips squeezed together. The treads slapped on and they went over the slimy muck into the dark waste before them.

Sometime later Kelly’s big arm shot out and caught Bishop’s wrist. With a twist he brought the spaceman before the front viewing window. Bishop found himself staring into the cone of light cast forward by the mudslapper. “Look!” Kelly grunted. “Do you believe your own eyes, I wonder?”

Huge, sinuous, boiling out of the slimy surface, the mudsnake showed clearly. The head was only a drooling nozzle, loose and slobbery, a gaping, sucking orifice twenty feet in diameter, fit mouth for a being which was almost all stomach. Above the nozzle glittered three glassy globes, each erect on its own stalk, the creature’s eyes. The body was a pale, slimy yellow faintly touched with phosphorescence. It stretched back and back in heaving loops until it disappeared in the blackness.

Bishop's wiry fingers bit into the big arm. "Turn, Kelly! If that thing tackles us, we haven't got a chance!"

Kelly's big hands held the wheel unmoved. "Watch!"

The sinuous coils twisted violently. The green-black muck churned. Suddenly there remained only the heaving of the surface, rapidly settling to smoothness.

"It's the light," Kelly said. "Sunlight never hits the surface here. Ordinary light burns the snakes as badly as a blowtorch would us. Still think it's belly gas?"

Johnny Bishop's lips opened, but he did not answer.

The radio interrupted him. Sudden interference blurred the musical note which was supposed to indicate the position of Station 83, though Kelly now believed it to be false.

Kelly's big hand shot at the control knob. A slight twist and the interfering wave came in at full volume, the level tones of an automatic tape: "Vessel in distress, vessel in distress—"

There was no need for any direction signal. The antenna loop gave them the direction, and the intensity of the standard voice tape, registered in decibels on the gauge, gave the distance. "Twenty miles," Kelly grunted. "Make it in about half an hour." The clank of the rolling treads became louder as he speeded up and the mudslapper raced over the surface.

"Wait a minute!" Bishop said sharply. "You just said you didn't have our position! There's something screwy going on, anyway. If we hit one of those spiro things you're talking about—"

"Shut up!" Kelly said flatly. "You talk too much. While I'm running the *Galapagos* we answer distress signals, whether things are screwy or not."

"But—"

"I said to shut up, space bum!"

Bishop bit back the hot words. The mudslapper rolled along.

Very suddenly the distress signal stopped, chopped off dead. Kelly grunted. He had the vessel's position, of course, but—

"What happened?" Bishop demanded.

"Don't know. Maybe something happened to their radio. Maybe they went under. We'll find out." Kelly's big hand twisted the knob of the radio back in search of the signal from Station 83.

The air was dead. No station was on the air now!

Kelly's voice was different, quieter. "I don't like it," he said. And, even slower: "Something rotten's going on."

He beckoned Bishop with a nod of his head. "You're not much good here, but you can help me look. If you see anything at all lifting above the surface, holler. It might be a spirocyst."

"What are they?"

"The mudsnakes make them and live in them. After a while they get as hard as rock. No one knows how deep they really go. They're like stony, hollow tubes big enough to let the snakes in, and they spiral down into the muck."

They rolled on into the black blindness of the mud. Several times Kelly fiddled with the radio, to no avail. The *click-clack* and snap of static was the only sound. Bishop hated it. It got on a man's nerves.

Kelly's head lifted suddenly. He sniffed the air. "Take the controls!" he snapped at Bishop, and slid out of his seat. One stride took him to a movable plastic section of the hull. He twisted a handle and lifted. The nauseous atmosphere sucked in. There was a sour tang to the stench—"Acid!" Kelly roared.

He slammed the section of hull back into place and leaped to the controls. "Hang on!" he boomed at Johnny Bishop. "Somebody put a slick of acid down! If it gets at the mud-plate hooks on the inside of the treads, we'll be using an S O S tape ourselves!"

With an outraged whine the treads raced as Kelly jammed on full power. The mudslapper rocked and pitched as she bucked her way through the slime at a dangerous pace.

That, for perhaps four minutes. Then Kelly's big hands danced in and out of the controls in an insane dervish dance. Speeds changed. The racking clatter of mud plates out of pace changed with sickening speed to no motion at all. Then one tread speeded and one reversed. The *Galapagos* turned, shuddered, twisted, leaped, nosed down to the muck, then strove madly to climb up above the slime altogether into the dank atmosphere. Johnny Bishop hung grimly to the projections he had first gripped as the mudslapper threw him around. Kelly bounced in his seat before the controls like a big black lunatic.

The mad leaping ceased. Kelly whipped away from the controls. "That washed off most of the acid," he boomed at Bishop. "Take over, and ease her along. We have some alkalizing mixtures. They'll kill the acid."

He opened the narrow door and disappeared into the rear of the mudslapper's fuselage as Bishop took the controls. He was back a moment later, two big cans under his arms. "Go slow and easy," he boomed. Then he threw open the hull again, and with a pace curiously swift and catlike for so huge a man, he stepped out, one hand and both legs hooking over the slender metal struts which kept the body of the *Galapagos* rigidly suspended over her racing treads. The darkness swallowed him.

Johnny Bishop remembered something and searched among the controls. He twisted a knob

and there was sudden brightness outside as the body lights went on.

Very gently he nursed the treads along. The mudslapper wallowed heavily as the reduced speed sank her more deeply into the surface of slimy muck.

A hollow boom sounded outside, the thick, moist, stinking atmosphere vibrating it into Johnny Bishop's eardrums. The *Galapagos* pitched and rocked violently.

Kelly's big voice, diminished in coming from outside, roared at him. "Lights off! All of them! They're gunning us, damn their rotten souls! Lively!"

Lights went out. Another roar. The pitching became more violent.

"Inside lights, too! Change course and speed up. I'll hang on!"

The spaceman inside the mudslapper obeyed mechanically. In utter darkness he groped for the controls. The gears ground as he shifted course and the treads speeded up.

Another blast outside, but this time they did not pitch so violently. The attackers could not aim at a dark spot in the black ink of Venus' unlighted atmosphere.

Bishop stood in the utter darkness gripping the wheel, trying not to think of spirocysts, and what would happen if the blinded *Galapagos* hit one, or if they encountered a mudsnake for which the entire vessel would merely be a queer but not too difficult addition to an omnivorous diet.

Something heaved in through the open hull section. It slammed shut. "Turn on the inside lights now," Kelly's voice boomed.

The lights went on. Kelly stood there, unmoving. Slime bespattered the big Irishman. His eyes were hot and merciless in his black-bearded face as he concentrated on some thought.

"Who is it?" Bishop's voice sounded thin in the hot air.

"I don't know," Kelly said, coming out of his fierce trance. "We'll have to wait and find out." He went to the controls and set the ship on a tightly circular course which would keep them from leaving the area. "Keep a tight watch, and if anything happens, holler. I'll be checking our torpedoes."

Bishop hunched over the controls. "What are we going to fight? If you don't know—"

"We'll know!" Kelly said. "We'll know before we're done!" He was gone into the rear compartment of the mudslapper, where food stores, bunks, sweeping and pearling gear, and weapons lay in an orderly confusion. For long minutes the sound of thumping, scraping and unpacking came to the man at the controls.

Then Kelly was back, nodded Bishop away from the place before the wheel, and took over. He

stared with a fierce, waiting concentration at the instruments on the board before him. The minutes passed and he sat there, his big, slime-splattered body motionless as a thing carved of metal, his breath coming evenly and steadily and without haste as he waited.

At last came the merest flicker of one of the gauges, but it was what he had been waiting for. Unhesitatingly he swung the wheel, the gears grated, and the *Galapagos* turned.

They followed the new course.

"What—" Johnny Bishop began.

"Torpedoes," Kelly said. "They're not near enough yet."

Twice more the mudslapper changed course. Each time the flicking needle on the gauge had swung just a little wider.

"Now!" Kelly said. His hand went down to a handle set low in the board, whose use Bishop did not know. His one hand on the wheel, he pulled the handle with the other. He turned the wheel and the mudslapper turned a little with it, and the handle came up again. Four times it happened.

Then he threw the wheel halfway around and the mudslapper lurched wildly until they were at right angles to their previous course. "One of them ought to do it," Kelly said.

"Torpedoes?" Bishop asked.

"I sent out four— Ah!"

It bloomed in the forward window, a vast spout of red flame lurid against the backdrop of utter blackness. Briefly it lingered, then died. A second later the concussion came back, harsh and thunderous in the thick air, and the *Galapagos* swayed and lurched as the slimy muck heaved beneath her.

Kelly nodded, satisfaction in the set of his face. "We got them!" He slapped at the controls and the treads speeded up with a new whining note. The forward light went on, throwing out its cone of harsh brilliance. Only the heaving, greenish black of the mud showed in it.

They raced on. At the very edge of the cone of light something showed, dimly projecting above the surface. Rapidly it became clearer. The upper part of it quite unmistakably was the hull of a mudslapper, nose down in the mud. Behind it reared a tangle of broken treads and twisted struts. Fast as they came, it was visibly lower as they neared it.

Kelly set a course circling around the wreckage. "Take over," he boomed at Bishop, "and stay on this course."

From the ceiling of the mudslapper he swung down a long, thick section of stiff metal tubing on slender metal arms. He thrust the nose of the tube forward and a section of hull automatically opened up. He pulled a hook set in front of the

tube and a section of thin, tough metal chain came out, which he fastened tightly around his middle. Set into the tubing directly above the end of the chain was a dial. He moved it. Instantly a motor hummed and the tubing thrust itself out of the hull, revealing a smaller tube set telescopically into the larger. Slowly and steadily the tube and its human burden moved out and over the muck until Kelly hung directly above the sinking wreck of the other mudslapper. He did something with the dial and the extended rod of telescoping metal inclined itself. Kelly groped at the hull of the wreck, found a section opening, and then was inside. He remained for about a minute, while the *Galapagos* made a scrupulous circle around him.

He reappeared, a limp burden gripped with one arm, while his other groped at the dial in the tubular rod. Swiftly the latter telescoped, drawing Kelly back into the *Galapagos*.

He dropped the man. On the floor the other slid limply on his side, showing a thin, wizened face upon which dissipation and greed had etched their unmistakable signs. His eyes were closed and his breath came in shallow gasps. Blood covered one side of his face.

Methodically Kelly put away the tubular rod and gear before he turned to the man on the floor.

"Who is it?" Bishop asked.

"Acey Hoglund," Kelly grunted. "One of the oldest mudmen on Venus, and the meanest. He's a real, genuine, bona fide human louse. I've got to find out what he's been up to."

He went back into the hull and reappeared a moment later with a hypodermic needle loaded with a faintly green liquid. Roughly he thrust it into Hoglund's thin chest and slowly squeezed the liquid into him.

Almost at once the gasping breath of the mudman on the floor quickened, and a moment later he was stirring. He stared up at Kelly and Bishop out of hard, unrevealing slate-blue eyes. He groped at his mouth with one hand, and his expression did not change at sight of the pink froth which meant death here in the mud of Venus, far away from any hospital.

There was no pity in Kelly's booming voice. "Spit it out, Acey. You're done. Some ribs went through your lungs."

Hoglund did not answer.

"What have you been up to, Acey? What happened to Station 83?"

"Torpedo." Hoglund spoke with difficulty.

"Why, you dirty little skunk! And why did you have to fake Eighty-three? A trap for somebody?"

The nod of Hoglund's head was almost imperceptible. His breathing was becoming shallower. "Mercurians!" he gasped out.

Kelly's big body stiffened. "I'm getting it now. The Mercurian ambassador was to visit New

Washington about this time. But why? Did you torpedo the Mercurian mudslapper?"

"Too dangerous!" Hoglund gasped. "Armed. I lured it off course until it smashed up on a big spirocyst. A mudsnake finished it—"

Kelly was looking at Hoglund, but not seeing him now. "War!" he said, his voice a husky whisper. "This means war with the Mercurians!" He glared down at Hoglund. "Why did you do it?" he demanded harshly.

"Pearl claim . . . if Earth won, it would be mine . . . Mercurian territory now—" Hoglund's voice was fainter and fainter.

"You'd plunge the planet into war again for a few lousy pearls!" Kelly bellowed. "Why, you—" His hands worked. His foot lifted.

Very swiftly Hoglund's right hand dipped down toward his belt, lifting again with one of the outmoded bullet-using automatics which some of the older mudmen still carried in preference to the newer para-ray guns.

Bishop saw Kelly throw himself to one side as the room filled with the roar of the weapon. He saw Hoglund's hand follow Kelly's movement, heard a second roar from the weapon as he himself plunged down at the dying mudman.

Hoglund snarled, his parted teeth pink with bloody froth from his lungs. The gun hand twisted around toward him. Bishop's weight came down on him.

Bishop felt rather than heard the queer give of the man's chest beneath him, but Hoglund's choking, gurgling scream rang sickeningly in his ears, and the spout of hot blood from the torn lungs was something his memory would never erase.

When he came to his feet Hoglund had stopped breathing.

Kelly lay face down on the floor, very still. Bishop was beside him in one stride. There was a red seepage on the dark hair of Kelly's back. The blood came from a wound over the spine. Staring down at him, Bishop saw in one flashing glance of comprehension what had happened.

"Kelly!" he said sharply as he stooped. He put his hands gently on the hairy shoulders. "Kelly!"

The boom was gone from Kelly's voice, but he spoke evenly. "It's my back. His bullet nicked my spine."

"Can you move?" Bishop demanded urgently.

"I tried. I can move my hands, but not my legs or feet. As far as helping anyone goes, I'm a total loss." A fiercer note came into his voice. "Hoglund—is he dead?"

"He's dead." Bishop stood up and looked down at the big form helpless on the floor. "I'll have to get you into a bunk and strap you in. You do any bouncing around now and it'll kill you."

He went into the sleeping compartment and came back with a blanket from Kelly's bunk. With

some difficulty, taking care not to jostle the big man, he got the blanket under him. "I'll drag you in on this. Take it easy," he warned.

The lower bunk was almost at floor level in order to allow for storage above, and he managed to get Kelly into it. Over the Irishman's sulphurous protests he tied him firmly into place in the bunk, face down. "If the going gets rough, you won't be rolling out on me," he announced grimly. He rather enjoyed the feeling that now Kelly was helpless and dependent on him.

"Wait till I get on my feet again," Kelly threatened. "I'll take you apart!"

"First I'll get you to a hospital where they'll take you apart."

"Hospital!" Kelly howled. "Never mind any hospitals! You get this mudslapper over to where the Mercurians went down! Even if a mudsnake swallowed them, they may still be alive. They always wear air-tight pressure suits because they can't stand the air of Venus! The stomach acids inside the mudsnake haven't had time to go through those suits yet. You head the *Galapagos* where I tell you—"

"You're not running the *Galapagos* any more," Johnny Bishop said flatly.

"Not— Don't you realize what this means? Never mind your own worthless hide! This means war if we don't save at least one of those Mercurians! You follow my orders or I'll—"

"You'll do what?" Bishop said coldly. "While you were fit to issue orders, I obeyed them. Now I'm running things, and I'll go where I think best when I think best. I'll do my best to save your life, but I still hate your guts, Kelly. Remember it!"

"If I could get my hands on you now," Kelly whispered hoarsely. "If I could wrap my fingers around your skinny coward's throat for two minutes—"

"Dream of it, Kelly!" Johnny Bishop went back to the controls. A moment he stood before them, frowning, trying to remember the position co-ordinates he wanted. Then the wheel turned in his hands, the gears ground, and the *Galapagos* lurched off on her new course.

Fifteen minutes later the spirocyst showed in the light of the forward beam, hardly visible above the flatness of the muck. Then the *Galapagos* was circling in a tight loop around it, the beam holding the stony shell in its glare. One side of the spirocyst was cracked. A dribble of mud went down the opening. The slimy trail left by a mudsnake going down into the spiraling stony tube was clearly visible. A strange, outlandish noise boomed hollowly up from the interior. The mudsnake was still there.

Johnny Bishop's thin face was white, and for several minutes he allowed the *Galapagos* to circle around the opening. Then, teeth set, he twisted

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the wheel. Slowly and cautiously the mudslapper headed for the stony lip of the spirocyst. Speed would have meant disaster, as it doubtless had to the Mercurian mudslapper which had preceded them.

"Where are we? What are you doing?" Kelly demanded from the rear compartment.

"Guess!" Bishop said sardonically.

The *Galapagos* hit the side of the spirocyst and lurched wildly. The fins on the bottom of the mud plates grated harshly on the stony surface. With a sudden clatter the mudslapper clambered over the edge of the craterlike opening, then nosed sharply down. At a steep slant, mud plates making an unholy racket on the stony surface, they spiraled down into the lair of the mudsnake.

Kelly was swearing, the boom of his voice plain even above the racket. "—and I'll break a couple of bones extra because you pretended to turn back just to plague me!" he wound up. "Stop this mudslapper and get ready for what's coming. Learn the control of every light, you ignorant space bum! We're heading for the inside of a mudsnake, and if we're not ready to give him the damndest belly-ache he ever had, we'll stay there!"

Bishop swore under his breath and stopped the *Galapagos*. Why did he have to wait for Kelly to point out the obvious?

"What have we got for weapons?" he yelled to Kelly.

"Lights and flares," Kelly answered. "If that doesn't kill the damn thing, nothing will. We can't use bullets, because little holes don't bother the snakes at all. We can't use anything heavier because we'd be more apt to blow ourselves up than the snake."

"You ought to know. The lights and flares are all controlled by the bank of switches on the right of the panel, aren't they?"

"Right. And though I hate to say it to you, good luck," Kelly boomed.

Bishop grunted and turned back to the controls. The strange, angry screaming of the mudsnake filled the hollow tube of the spirocyst, now that the clatter of the *Galapagos* had stilled. Despite the fact that the mudslapper was not moving, a strange, sickening vibration made Bishop's footing unsteady. The mudsnake was on a rampage.

The *Galapagos* began to move again, with a growing clatter as she speeded up. Even above the noise the screaming of the mudsnake was plain now, and coming nearer. Bishop set his teeth, and the muscles were tight in his lean body. Any minute now—

In the glare of the forward light he noticed that cracks were beginning to appear in the stony stuff of the spirocyst itself. Muck seeped in, green and black and slimy.

Suddenly the mudsnake showed before him. The

great body filled the spirocyst from wall to wall. The slobbery nozzle of a mouth gaped wide, a maw huge enough to engulf two of the *Galapagos*. Convulsive thrashing movements of the body bulged at the quivering walls.

At the touch of the forward light the screaming note changed abruptly. With a single ferocious whistling blast of pure rage it charged, huge and merciless as some immutable force of nature itself. The great, soft, slimy nozzle of its mouth gaped even wider—

Convulsively Johnny Bishop slapped at the light switches, and every light possessed by the *Galapagos* threw out its glare. The great maw came nearer, nearer—

A sudden convulsive lurch of the mudslapper threw Bishop from his seat. A strange, dim darkness shot with the deadened glare of the vessel's lights ensued. No more stony glare from the walls of the spirocyst—the mudsnake had swallowed them!

Bishop struggled to his feet again. The *Galapagos* lurched and whipped viciously in the opposite direction as he did so, and he fell again, bringing up with a slam against the farther wall.

Head spinning, he grabbed at the back of the control chair and froze to it amid the mudslapper's wild gyrations as the mudsnake flung it violently around within itself with every convulsive move of the great body. Hoglund's limp form slithered back and forth across the floor, leaving red trails of blood.

Back and forth, like a mouse batted from paw to paw of a cat, the vessel slammed wildly. The convulsions of the mudsnake became ever more insensate, more frantic.

Bishop threw his body around into the chair, locked his legs around the base of it and shoved back until the curve of the back gripped his lean flanks firmly. His fingers rammed at the controls as the *Galapagos* almost tipped over. Briefly, even in that moment, he found himself wondering if Kelly was strapped in securely enough to keep from being injured now. Under the command of his fingers the treads of the mudslapper went as mad as the convulsed serpent within which it moved. The right tread speeded up, the left slowed, and the whole vessel churned and bit into the soft, slimy flesh of the mudsnake's internal organs, even as the actinic rays of its lights seared unbearably into the vitals of the creature from sunless Venus.

Wildly it went on, the *Galapagos* snapping back and forth with almost inconceivable rapidity as it writhed with the agony of the great reptile. For minutes, for hours—Bishop could not know. He knew only the darkness which threatened always to swallow his senses, and the blood which came in trickles and spurts from his nostrils, from one ear, and from a cut on one cheek. All he knew



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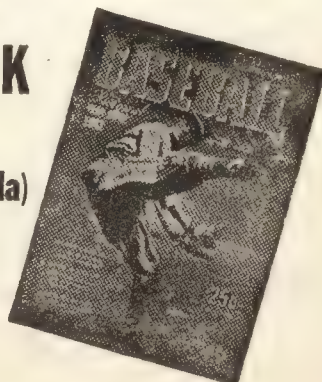
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was that his body was one great ache, and that with every movement his muscles seemed to be tearing, while a voice he could not hear in the turmoil screamed his pain from distorted lips.

Very suddenly, the movement stopped. He hung there in his chair, muscles rigid, his body still seeming to whirl even when it was still. A minute, and then, more viciously than ever, the motion recommenced. Not for long. It stopped again. Several times there were single spasmodic movements, at longer and longer intervals.

Finally there was no movement at all.

The mudsnake was dead. From very far the thought seemed to penetrate Bishop's battered brain. For a long time he sat very still.

Blood ran in a little warm stream from his nostrils. It tasted salty on his dry lips. His vision was blurred, faded. His fingers and hands—his whole body—shook violently.

He tried to get up and fell to the floor. He tried to stand, only to fall again. Finally he was able to crawl.

He was going to the rear compartment, to the sleeping quarters where Kelly was, when a new sound penetrated his consciousness.

A rhythmic tapping. He shook his head to dispel the illusion. It couldn't be. Nothing could be tapping out space code here.

He crawled on again.

The tapping sounded much louder. It came from the hull. Someone was beating on the hull. In Interplanetary Code. Only one word, "Open!" Over and over again—

He crawled toward the sound. He came to the hull. Holding on, leaning against it, he pulled erect. He stood there, swaying, and fumbled with the handle which would throw a section of hull open.

He fumbled, and put his weight on it, and it wouldn't open. The beating on the hull continued louder than ever, with something of frenzy in the sound.

The handle turned at last. The hull section slid open. Stench, sickening, overpowering, came into the ship, the odor of Venus muck mingling with the acrid acids of digestion. Black blobs, sickening with that stench, clambered in.

He pushed at them in disgust, crying out at them. He swayed, and then the stench, and the pain in his head, and his weakness, combined into something which pressed down on him. Everything darkened and he felt himself falling.

When he woke once more a hammer was still pounding none too gently on the inside of his skull, and he was very weak, but otherwise the sense of helpless nightmare had passed. The pound of the mud plates—a bit ragged and wobbly—and the

lurch of the mudslapper told him that someone had the *Galapagos* under control. The stench which had filled the vessel in the spirocyst was almost gone.

Painfully he twisted his head. Kelly, still face down, was in his own bunk, tied down. A powerful snore came from him at intervals.

At Bishop's movement another being, previously unnoticed, stirred and came toward him. The thing was about three feet tall, incased in a pressure suit of black, polished plastic. In form it was something like a cross between spider and octopus, walking on three slender, stilted, outbending legs like jointed tripods, and with three flexible, tapering tentacles in place of arms. In the center of the ovoid body was a transparent opening through which a single large, round, pupilless eye stared at him.

A Mercurian! He remembered the blobs which had entered the *Galapagos*, covered with muck and stench. Some of them, at least, had been saved, then.

The Mercurian carried one of the voice boxes which his race found necessary in conversing with men. He set it down in front of Bishop's bunk and his three long tentacles slapped down at the keys which controlled it. Clipped, mechanical sounds came from the machine: "I am Kun Gor, first ambassador from Mercury colonists on Venus to Earth colonists. On behalf of myself and the two companions whom you rescued from the interior of the great serpent, I thank you. I shall tell my people of your great courage and your kindness in our behalf."

Bishop was surprised at how cracked and squeaky his own voice sounded. "It was an honor to be able to help."

The mechanical voice of the word box came again: "Please do not tire yourself. Try to rest. Your companion also is very ill. We gave him a sedative. Only tell me your name and title before you sleep. My people will wish to know the name of our benefactor."

"John Cosgrave Bishop, second ensign, space service," the squeaky voice which belonged to Johnny Bishop said.

The form in the other bunk moved. Kelly's booming voice rolled out. "Don't you listen to him. He's a bum and as mean as a Martian itch-bug, and when I get on my feet I'm going to wallop him from here to New Washington. Just the same he's a mudman, not a damned space blaster. Johnny Bishop, mudman—that's title enough for anyone! Put it down that way!"

Kun Gor waited an instant for Bishop to speak, and then his three tentacles tipped forward in the Mercurian gesture of politeness. "Johnny Bishop, mudman. I will remember."



PROOF

By Hal Clement

● It's a little hard for us to realize, but the fact is that the condition we know as "solid" matter is a freak, an abnormality that, practically speaking, doesn't exist in the universe.

Illustrated by Orban

Kron held his huge freighter motionless, feeling forward for outside contact. The tremendous interplay of magnetic and electrostatic fields just beyond the city's edge was as clearly perceptible to his senses as the city itself—a mile-wide disk ringed with conical field towers, stretching away behind and to each side. The ship was poised between two of the towers; immediately behind it was the field from which Kron had just taken off. The area was covered with cradles of various

forms—cup-shaped receptacles which held city craft like Kron's own; long, boat-shaped hollows wherein reposed the cigarlike vessels which plied between the cities; and towering skeleton frameworks which held upright the slender double cones that hurtled across the dark, lifeless regions between stars.

Beyond the landing field was the city proper; the surface of the disk was covered with geometrically shaped buildings—cones, cylinders, prisms,

and hemispheres, jumbled together.

Kron could "see" all this as easily as a human being in an airplane can see New York; but no human eyes could have perceived this city, even if a man could have existed anywhere near it. The city, buildings and all, glowed a savage, white heat; and about and beyond it—a part of it, to human eyes—raged the equally dazzling, incandescent gases of the solar photosphere.

The freighter was preparing to launch itself into that fiery ocean; Kron was watching the play of the artificial reaction fields that supported the city, preparatory to plunging through them at a safe moment.

There was considerable risk of being flattened against the edge of the disk if an inauspicious choice was made, but Kron was an experienced flier, and slipped past the barrier with a sudden, hurtling acceleration that would have pulped any body of flesh and bone. The outer fringe of the field flung the globe sharply downward; then it was free, and the city was dwindling above them.

Kron and four others remained at their posts; the rest of the crew of thirty relaxed, their spherical bodies lying passive in the cuplike rests distributed through the ship, bathing in the fierce radiance on which those bodies fed, and which was continually streaming from a three-inch spheroid at the center of the craft. That an artificial source of energy should be needed in such an environment may seem strange, but to these creatures the outer layers of the sun were far more inhospitable to life than is the stratosphere of Earth to human beings.

They had evolved far down near the solar core, where pressures and temperatures were such that matter existed in the "collapsed" state characteristic of the entire mass of white dwarf stars. Their bodies were simply constructed: a matrix of close-packed electrons—really an unimaginably dense electrostatic field, possessing quasi-solid properties—surrounded a core of neutrons, compacted to the ultimate degree. Radiation of sufficient energy, falling on the "skin," was stabilized, altered to the pattern and structure of neutrons; the tiny particles of neutronium which resulted were borne along a circulatory system—of magnetic fields, instead of blood—to the nucleus, where it was stored.

The race had evolved to the point where no material appendages were needed. Projected beams and fields of force were their limbs, powered by the annihilation of some of their own neutron substance. Their strange senses gave them awareness not only of electromagnetic radiation, permitting them to "see" in a more or less normal fashion, but also of energies still undreamed of by human scientists. Kron, hundreds of miles below the city now, was still dimly aware of its location, though radio waves, light and gamma

rays were all hopelessly fogged in the clouds of free electrons. At his goal, far down in the solar interior, "seeing" conditions would be worse—anything more than a few hundred yards distant would be quite undetectable even to him.

Poised beside Kron, near the center of the spheroidal sun ship, was another being. Its body was ovoid in shape, like that of the Solarian, but longer and narrower, while the ends were tipped with pyramidal structures of neutronium, which projected through the "skin." A second, fainter static aura enveloped the creature outside the principal surface; and as the crew relaxed in their cups, a beam of energy from this envelope impinged on Kron's body. It carried a meaning, transmitting a clear thought from one being to the other.

"I still find difficulty in believing my senses," stated the stranger. "My own worlds revolve about another which is somewhat similar to this; but such a vast and tenuous atmosphere is most unlike conditions at home. Have you ever been away from Sol?"

"Yes," replied Kron, "I was once on the crew of an interstellar projectile. I have never seen your star, however; my acquaintance with it is entirely through hearsay. I am told it consists almost entirely of collapsed matter, like the core of our own; but there is practically no atmosphere. Can this be so? I should think, at the temperature necessary for life, gases would break free of the core and form an envelope."

"They tend to do so, of course," returned the other, "but our surface gravity is immeasurably greater than anything you have here; even your core pull is less, since it is much less dense than our star. Only the fact that our worlds are small, thus causing a rapid diminution of gravity as one leaves them, makes it possible to get a ship away from them at all; atoms, with only their original velocities, remain within a few miles of the surface.

"But you remind me of my purpose on this world—to check certain points of a new theory concerning the possible behavior of aggregations of normal atoms. That was why I arranged a trip on your flier; I have to make density, pressure, temperature, and a dozen other kinds of measurements at a couple of thousand different levels, in your atmosphere. While I'm doing it, would you mind telling me why you make these regular trips—and why, for that matter, you live so far above your natural level? I should think you would find life easier below, since there would be no need to remain in sealed buildings, or to expend such a terrific amount of power in supporting your cities."

Kron's answer was slow.

"We make the journeys to obtain neutronium.

It is impossible to convert enough power from the immediate neighborhood of the cities to support them; we must descend periodically for more, even though our converters take so much as to lower the solar temperature considerably for thousands of miles around each city.

"The trips are dangerous—you should have been told that. We carry a crew of thirty, when two would be enough to man this ship, for we must fight, as well as fly. You spoke truly when you said that the lower regions of Sol are our natural home; but for æons we have not dared to make more than fleeting visits, to steal the power which is life to us.

"Your little worlds have been almost completely subjugated by your people, Sirian; they never had life forms sufficiently powerful to threaten seriously your domination. But Sol, whose core alone is far larger than the Sirius B pair, did develop such creatures. Some are vast, stupid, slow-moving or immobile; others are semi-intelligent, and rapid movers; all are more than willing to ingest the ready-compacted neutronium of another living being."

Kron's tale was interrupted for a moment, as the Sirian sent a ray probing out through the ship's wall, testing the physical state of the inferno beyond. A record was made, and the Solarian resumed.

"We, according to logical theory, were once just such a race—of small intelligence, seeking the needs of life among a horde of competing organisms. Our greatest enemy was a being much like ourselves in size and power—just slightly superior in both ways. We were somewhat ahead in intelligence, and I suppose we owe them some thanks—without the competition they provided, we should not have been forced to develop our minds to their present level. We learned to co-operate in fighting them, and from that came the discovery that many of us together could handle natural forces that a single individual could not even approach, and survive. The creation of force effects that had no counterpart in nature was the next step; and, with the understanding of them, our science grew.

"The first cities were of neutronium, like those of today, but it was necessary to stabilize the neutrons with fields of energy; at core temperature, as you know, neutronium is a gas. The cities were spherical and much smaller than our present ones. For a long time, we managed to defend them.

"But our enemies evolved, too; not in intelligence, but in power and fecundity. With overspecialization of their physical powers, their mentalities actually degenerated; they became little more than highly organized machines, driven, by an age-old enmity toward our race, to seek us out and destroy us. Their new powers at last enabled

them to neutralize, by brute force, the fields which held our cities in shape; and then it was that, from necessity, we fled to the wild, inhospitable upper regions of Sol's atmosphere. Many cities were destroyed by the enemy before a means of supporting them was devised; many more fell victims to forces which we generated, without being able to control, in the effort. The dangers of our present-day trips seem trivial beside those our ancestors braved, in spite of the fact that ships not infrequently fail to return from their flights. Does that answer your question?"

The Sirian's reply was hesitant. "I guess it does. You of Sol must have developed far more rapidly than we, under that drive; your science, I know, is superior to ours in certain ways, although it was my race which first developed space flight."

"You had greater opportunities in that line," returned Kron. "Two small stars, less than a diameter apart, circling a larger one at a distance incomparably smaller than the usual interstellar interval, provided perfect ground for experimental flights; between your world and mine, even radiation requires some one hundred and thirty rotations to make the journey, and even the nearest other star is almost half as far.

"But enough of this—history is considered by too many to be a dry subject. What brings you on a trip with a power flier? You certainly have not learned anything yet which you could not have been told in the city."

During the conversation, the Sirian had periodically tested the atmosphere beyond the hull. He spoke, rather absently, as though concentrating on something other than his words.

"I would not be too sure of that, Solarian. My measurements are of greater delicacy than we have ever before achieved. I am looking for a very special effect, to substantiate or disprove an hypothesis which I have recently advanced—much to the detriment of my prestige. If you are interested, I might explain: laugh afterward if you care to—you will not be the first.

"The theory is simplicity itself. It has occurred to me that matter—ordinary substances like iron and calcium—might actually take on solid form, like neutronium, under the proper conditions. The normal gas, you know, consists of minute particles traveling with considerable speed in all directions. There seems to be no way of telling whether or not these atoms exert appreciable forces on each other; but it seems to me that if they were brought closely enough together, or slowed down sufficiently, some such effects might be detected."

"How, and why?" asked Kron. "If the forces are there, why should they not be detectable under ordinary conditions?"

"Tiny changes in velocity due to mutual attraction or repulsion would scarcely be noticed, when

the atomic speeds are of the order of hundreds of kilometers per second," returned the Sirian. "The effects I seek to detect are of a different nature. Consider, please. We know the sizes of the various atoms, from their radiations. We also know that, under normal conditions, a given mass of any particular gas fills a certain volume. If, however, we surround this gas with an impenetrable container and exert pressure, that volume decreases. We would expect that decrease to be proportional to the pressure, except for an easily determined constant due to the size of the atoms, if no interatomic forces existed; to detect such forces, I am making a complete series of pressure-density tests, more delicate than any heretofore, from the level of your cities down to the neutron core of your world.

"If we could reduce the kinetic energy of the atoms—slow down their motions of translation—the task would probably be simpler; but I see no way to accomplish that. Perhaps, if we could negate nearly all of that energy, the interatomic forces would actually hold the atoms in definite relative positions, approximating the solid state. It was that somewhat injudicious and perhaps too imaginative suggestion which caused my whole idea to be ridiculed on Sirius."

The ship dropped several hundred miles in the few seconds before Kron answered; since gaseous friction is independent of change in density, the high pressures of the regions being penetrated would be no bar to high speed of flight. Unfortunately, the viscosity of a gas does increase directly as the square root of its temperature; and at the lower levels of the sun, travel would be slow.

"Whether or not our scientists will listen to you, I cannot say," said Kron finally. "Some of them are a rather imaginative crowd, I guess, and none of them will ignore any data you may produce.

"I do not laugh, either. My reason will certainly interest you, as your theory intrigues me. It is the first time anyone has accounted even partly for the things that happened to us on one of my flights."

The other members of the crew shifted slightly on their cradles; a ripple of interest passed through them, for all had heard rumors and vague tales of Kron's time in the space carrier fleets. The Sirian settled himself more comfortably; Kron dimmed the central globe of radiance a trifle, for the outside temperature was now considerably higher, and began the tale.

"This happened toward the end of my career in space. I had made many voyages with the merchant and passenger vessels, had been promoted from the lowest ranks, through many rotations, to the post of independent captain. I had my own cruiser—a special long-period explorer, owned by

the Solarian government. She was shaped like our modern interstellar carriers, consisting of two cones, bases together, with the field ring just forward of their meeting point. She was larger than most, being designed to carry fuel for exceptionally long flights.

"Another cruiser, similar in every respect, was under the command of a comrade of mine, named Akro; and the two of us were commissioned to transport a party of scientists and explorers to the then newly discovered Fourth System, which lies, as you know, nearly in the plane of the Solar equator, but about half again as distant as Sirius.

"We made good time, averaging nearly half the speed of radiation, and reached the star with a good portion of our hulls still unconsumed. We need not have worried about that, in any case; the star was denser even than the Sirius B twins, and neutronium was very plentiful. I restocked at once, plating my inner walls with the stuff until they had reached their original thickness, although experience indicated that the original supply was ample to carry us either back to Sol, to Sirius, or to Procyon B.

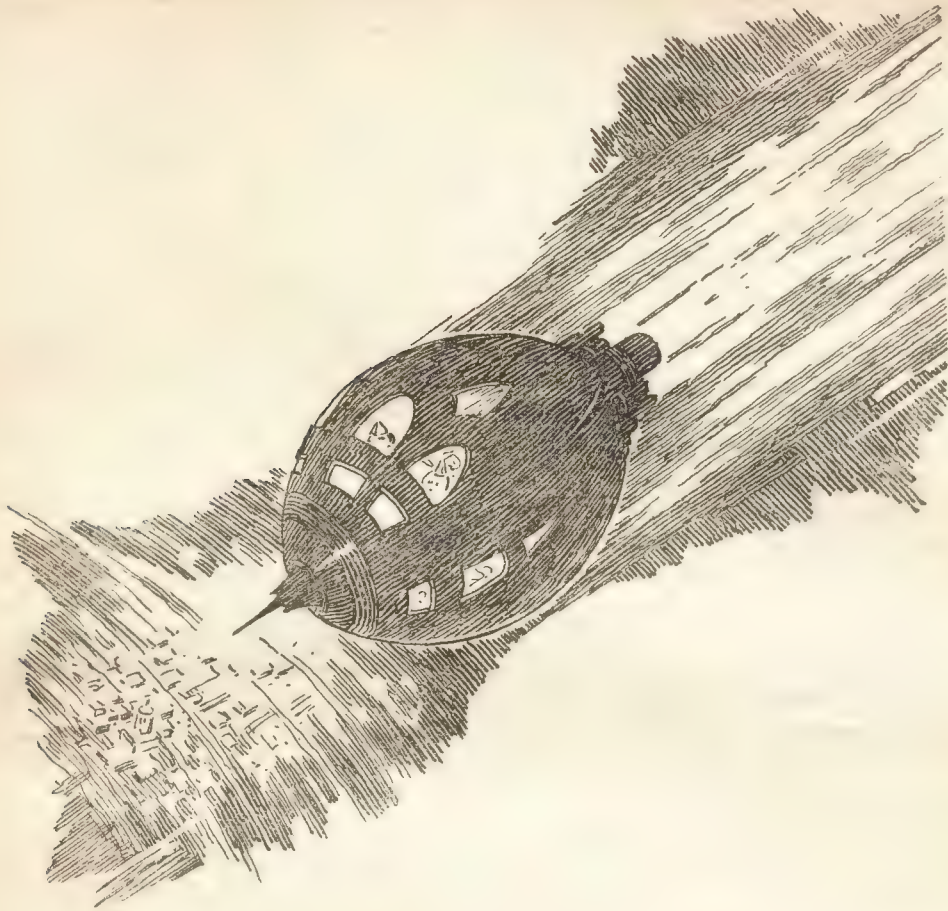
"Akro, at the request of the scientists, did not refuel. Life was present on the star, as it seems to be on all stars where the atomic velocities and the density are high enough; and the biologists wanted to bring back specimens. That meant that room would be needed, and if Akro replated his walls to normal thickness that room would be lacking—as I have mentioned, these were special long-range craft, and a large portion of their volume consisted of available neutronium.

"So it happened that the other ship left the Fourth System with a low, but theoretically sufficient, stock of fuel, and half a dozen compartments filled with specimens of alien life. I kept within detection distance at all times, in case of trouble, for some of those life forms were as dangerous as those of Sol, and, like them, all consumed neutronium. They had to be kept well under control to safeguard the very walls of the ship, and it is surprisingly difficult to make a wild beast, surrounded by food, stay on short rations.

"Some of the creatures proved absolutely unmanageable; they had to be destroyed. Others were calmed by lowering the atomic excitation of their compartments, sending them into a stupor; but the scientists were reluctant to try that in most cases, since not all of the beings could stand such treatment.

"So, for nearly four hundred Solar rotations, Akro practically fought his vessel across space—fought successfully. He managed on his own power until we were within a few hundred diameters of Sol; but I had to help him with the landing—or try to, for the landing was never made.

"It may seem strange, but there is a large volume of space in the neighborhood of this sun which



is hardly ever traversed. The normal landing orbit arches high over one of the poles of rotation, enters atmosphere almost tangentially somewhere between that pole and the equator, and kills as much as remains of the ship's velocity in the outer atmospheric layers. There is a minimum of magnetic interference that way, since the flier practically coasts along the lines of force of the Solar magnetic field.

"As a result, few ships pass through the space near the plane of the Solar equator. One or two may have done so before us, and I know of several that searched the region later; but none encountered the thing which we found.

"About the time we would normally have started correcting our orbits for a tangential landing, Akro radiated me the information that he could not possibly control his ship any farther with the power still available to him. His walls were already so thin that radiation loss, ordinarily negligible, was becoming a definite menace to his vessel. All his remaining energy would have to be employed in keeping the interior of his ship habitable.

"The only thing I could do was to attach our ships together with an attractor beam, and make a nearly perpendicular drop to Sol. We would

have to take our chances with magnetic and electrostatic disturbances in the city-supporting fields which cover so much of the near-equatorial zones, and try to graze the nucleus of the sun instead of its outer atmosphere, so that Akro could replenish his rapidly failing power.

"Akro's hull was radiating quite perceptibly now; it made an easy target for an attractor. We connected without difficulty, and our slightly different linear velocities caused us to revolve slowly about each other, pivoting on the center of mass of our two ships. I cut off my driving fields, and we fell spinning toward Sol.

"I was becoming seriously worried about Akro's chances of survival. The now-alarming energy loss through his almost consumed hull threatened to exhaust his supply long before we reached the core; and we were still more than a hundred diameters out. I could not give him any power; we were revolving about each other at a distance of about one tenth of a Solar diameter. To lessen that distance materially would increase our speed of revolution to a point where the attractor could not overcome centrifugal force; and I had neither power nor time to perform the delicate job of exactly neutralizing our rotary momentum without throwing us entirely off course. All we could do was hope.

"We were somewhere between one hundred and one hundred and fifty diameters out when there occurred the most peculiar phenomenon I have ever encountered. The plane of revolution of our two ships passed near Sol, but was nearly perpendicular to the Solar equator; at the time of which I speak, Akro's ship was almost directly between my flier and the Sun. Observations had just shown that we were accelerating Sunward at an unexpectedly high pace, when a call came from Akro.

"'Kron! I am being pulled away from your attractor! There is a large mass somewhere near, for the pull is gravitational, but it emits no radiation that I can detect. Increase your pull, if you can; I cannot possibly free myself alone.'

"I did what I could, which was very little. Since we did not know the location of the disturbing dark body, it was impossible to tell just what I should do to avoid bringing my own or Akro's vessel too close. I think now that if I had released him immediately he would have swung clear, for the body was not large, I believe. Unfortunately, I did the opposite, and nearly lost my own ship as well. Two of my crew were throwing as much power as they could convert and handle into the attractor, and trying to hold it on the still easily visible hull of Akro's ship; but the motions of the latter were so peculiar that aiming was a difficult task. They held the ship as long as we could see it; but quite suddenly the radiations by means of which we perceived the vessel faded out, and before we could find a band which would get through, the sudden cessation of our centripetal acceleration told us that the beam had slipped from its target.

"We found that electromagnetic radiations of wave lengths in the octave above H-alpha would penetrate the interference, and Akro's hull was leaking energy enough to radiate in that band. When we found him, however, we could scarcely believe our senses; his velocity was now nearly at right angles to his former course, and his hull radiation had become far weaker. What terrific force had caused this acceleration, and what strange field was blanketing the radiation, were questions none of us could answer.

"Strain as we might, not one of us could pick up an erg of radiant energy that might emanate from the thing that had trapped Akro. We could only watch, and endeavor to plot his course relative to our own, at first. Our ships were nearing each other rapidly and we were attempting to determine the time and distance of closest approach, when we were startled by the impact of a communicator beam. Akro was alive! The beam was weak, very weak, showing what an infinitesimal amount of power he felt he could spare. His words were not encouraging.

"'Kron! You may as well cut your attractor, if you are still trying to catch me. No power that I dare apply seems to move me perceptibly in any direction from this course. We are all badly shocked, for we hit something that felt almost solid. The walls, even, are strained, and may go at any time.'

"'Can you perceive anything around you?' I returned. 'You seem to us to be alone in space, though something is absorbing most of your radiated energy. There must be energies in the cosmos of which we have never dreamed, simply because they did not affect our senses. What do your scientists say?'

"'Very little,' was the answer. 'They have made a few tests, but they say that anything they project is absorbed without reradiating anything useful. We seem to be in a sort of energy vacuum—it takes everything, and returns nothing.'

"This was the most alarming item yet. Even in free space, we had been doubtful of Akro's chances of survival; now they seemed reduced to the ultimate zero.

"Meanwhile, our ships were rapidly approaching each other. As nearly as my navigators could tell, both vessels were pursuing almost straight lines in space. The lines were nearly perpendicular but did not lie in a common plane; their minimum distance apart was about one one-thousandth of a solar diameter. His velocity seemed nearly constant, while I was accelerating sunward. It seemed that we would reach the near-intersection point almost simultaneously, which meant that my ship was certain to approach the energy vacuum much too closely. I did not dare to try to pull Akro free with an attractor; it was only too obvious that such an attempt could only end in disaster for both vessels. If he could not free himself, he was lost.

"We could only watch helplessly as the point of light marking the position of Akro's flier swept closer and closer. At first, as I have said, it seemed perfectly free in space; but as we looked, the region around it began to radiate feebly. There was nothing recognizable about the vibrations, simply a continuous spectrum, cut off by some interference just below the H-alpha wave length and, at the other end, some three octaves higher. As the emission grew stronger, the visible region around the stranded ship grew larger, fading into nothingness at the edges. Brighter and broader the patch of radiance grew, as we swept toward it."

That same radiance was seriously inconveniencing Gordon Aller, who was supposed to be surveying for a geological map of northern Australia. He was camped by the only waterhole in many miles, and had stayed up long after dark preparing his cameras, barometer, soil kit, and other equipment for the morrow's work.

The arrangement of instruments completed, he did not at once retire to his blankets. With his back against a smooth rock and a short, blackened pipe clenched in his teeth, he sat for some time, pondering. The object of his musing does not matter to us; though his eyes were directed heavenward, he was sufficiently accustomed to the southern sky to render it improbable that he was paying much attention to its beauties.

However that may be, his gaze was suddenly attracted to the zenith. He had often seen stars which appeared to move when near the edge of his field of vision—it is a common illusion; but this one continued to shift as he turned his eyes upward.

Not far from Achernar was a brilliant white point, which brightened as Aller watched it. It was moving slowly northward, it seemed; but only a moment was needed for the man to realize that the slowness was illusory. The thing was slashing almost vertically downward at an enormous speed, and must strike Earth not far from his camp.

Aller was not an astronomer, and had no idea of astronomical distances or speeds. He may be forgiven for thinking of the object as traveling perhaps as fast as a modern fighting plane, and first appearing at a height of two or three miles. The natural conclusion from this belief was that the crash would occur within a few hundred feet of the camp. Aller paled; he had seen pictures of the Devil's Pit in Arizona.

Actually, of course, the meteor first presented itself to his gaze at a height of some eighty miles, and was then traveling at a rate of many miles per second relative to Earth. At that speed, the air presented a practically solid obstacle to its flight, and the object was forced to a fairly constant velocity of ten or twelve hundred yards a second while still nearly ten miles from Earth's surface. It was at that point that Aller's eyes caught up with and succeeded in focusing upon the celestial visitor.

The first burst of light had been radiated by the frightfully compressed and heated air in front of the thing; as the original velocity departed, so did the dazzling light. Aller got a clear view of the meteor at a range of less than five miles, for perhaps ten seconds before the impact. It was still incandescent, radiating a bright cherry-red; this must have been due to the loss from within, for so brief a contact even with such highly heated air could not have warmed the Sun ship's neutronium walls a measurable fraction of a degree.

Aller felt the ground tremble as the vessel struck. A geyser of earth, barely visible in the reddish light of the hull, spouted skyward, to fall back seconds later with a long drawn-out rumble. The man stared at the spot, two miles away, which was still giving off a faint glow. Were "shooting stars" as regularly shaped as that? He had seen



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a smooth, slender body, more than a hundred feet in length, apparently composed of two cones of unequal length, joined together at the bases. Around the longer cone, not far from the point of juncture, was a thick bulging ring; no further details were visible at the distance from which he had observed. Aller's vague recollections of meteorites, seen in various museums, brought images of irregular, clinkerlike objects before his mind's eye. What, then, could this thing be?

He was not imaginative enough to think for a moment of any possible extraterrestrial source for an aircraft; when it did occur to him that the object was of artificial origin, he thought more of some experimental machine produced by one of the more progressive Earth nations.

At the thought, Aller strapped a first-aid kit to his side and set out toward the crater, in the face of the obvious fact that nothing human could possibly have survived such a crash. He stumbled over the uneven terrain for a quarter of a mile, and then stopped on a small rise of ground to examine more closely the site of the wreck.

The glow should have died by this time, for Aller had taken all of ten minutes to pick his way those few hundred yards; but the dull-red light ahead had changed to a brilliant-orange radiance against which the serrated edges of the pit were clearly silhouetted. No flames were visible; whence came the increasing heat? Aller attempted to get closer, but a wave of frightfully hot air blistered his face and hands, and drove him back. He took up a station near his former camp, and watched.

If the hull of the flier had been anywhere near its normal thickness, the tremendous mass of neutronium would have sunk through the hardest of rocks as though they were liquid. There was, however, scarcely more than a paper thickness of the substance at any part of the walls; and an up-thrust of adamantine volcanic rock not far beneath the surface of the desert proved thick enough to absorb the Sun ship's momentum and to support its still enormous weight. Consequently, the ship was covered only by a thin layer of powdered rock which had fallen back into the crater. The disturbances arising from the now extremely rapid loss of energy from Akro's ship were, as a result, decidedly visible from the surface.

The hull, though thin, was still intact; but its temperature was now far above the melting point of the surrounding rocks. The thin layer of pulverized material above the ship melted and flowed away almost instantly, permitting free radiation to the air above; and so enormous is the specific heat of neutronium that no perceptible lowering of hull temperature occurred.

Aller, from his point of observation, saw the

brilliant fan of light that sprang from the pit as the flier's hull was exposed—the vessel itself was invisible to him, since he was only slightly above the level of the crater's mouth. He wondered if the impact of the "meteor" had released some pent-up volcanic energy, and began to doubt, quite justifiably, if he was at a safe distance. His doubts vanished and were replaced by certainty as the edges of the crater began to glow dull-red, then bright-orange, and slowly subsided out of sight. He began packing the most valuable items of his equipment, while a muted, continuous roaring and occasional heavy thuds from the direction of the pit admonished him to hasten.

When he straightened up, with the seventy-pound pack settled on his shoulders, there was simply a lake of lava where the crater had been. The fiery area spread even as he watched; and without further delay he set off on his own back trail. He could see easily, by the light diffused from the inferno behind him; and he made fairly good time, considering his burden and the fact that he had not slept since the preceding night.

The rock beneath Akro's craft was, as we have said, extremely hard. Since there was relatively free escape upward for the constantly liberated energy, this stratum melted very slowly, gradually letting the vessel sink deeper into the earth. What would have happened if Akro's power supply had been greater is problematical; Aller can tell us only that some five hours after the landing, as he was resting for a few moments near the top of a rocky hillock, the phenomenon came to a cataclysmic end.

A quivering of the earth beneath him caused the surveyor to look back toward his erstwhile camp. The lake of lava, which by this time was the better part of a mile in breadth, seemed curiously agitated. Aller, from his rather poor vantage point, could see huge bubbles of pasty lava hump themselves up and burst, releasing brilliant clouds of vapor. Each cloud illuminated earth and sky before cooling to invisibility, so that the effect was somewhat similar to a series of lightning flashes.

For a short time—certainly no longer than a quarter of a minute—Aller was able to watch as the activity increased. Then a particularly violent shock almost flung him from the hilltop, and at nearly the same instant the entire volume of molten rock fountained skyward. For an instant it seemed to hang there, a white, raging pillar of liquid and gas; then it dissolved, giving way before the savage thrust of the suddenly released energy below. A tongue of radiance, of an intensity indescribable in mere words, stabbed upward, into and through the lava, volatilizing instantly. A dozen square miles of desert glowed white, then an almost invisible violet, and disappeared in superheated gas. Around the edges of this region, great gouts of lava and immense fragments of solid rock



BRASS TACKS

But Donovan probably would let him go. He'd assume Powell's answer was right out of human mental laziness.

Dear Mr. Campbell:

At last comes an issue justifying Astounding's change to large size, after two in which the extra space was filled with inferior material. There is no story in the March number which I am sorry to have read.

Perhaps I was put in a good mood by the expanded and improved letter section, which was, of course, the first thing I read when I got my copy. Caleb Northrup, despite some harping on the obvious, a modicum of sloppy thinking, and a misspelling of Schicklgruber (I think), has a darn good letter, lucidly written and with good ideas. Here's hoping Northrup's point of view will be kept in mind in your accepting and rejecting of the hack future-war stories you are no doubt being deluged with.

I also hope Mr. St. Clair accepts Northrup's challenge to a duel, at dawn, with brass tacks. The former's first letter, snowed under by opposition as it was, came near to starting an extremely interesting debate or two, and that the incipient debate was cut short can be blamed only on the unreasoning antagonism of most of his opponents. I remember, out of the many replies you published in the December, '40, Brass Tacks, but one that presented logical arguments without hysteria. Incidentally, if Mr. St. Clair does write another similar letter, it might be pleasant to see De Camp return from the slicks long enough to enter the melee—on one side or the other.

One more comment on Caleb Northrup; more exactly, on his mentioning as an author's fallacy the assumption that "whenever a war occurred,

the blame lay on *both* sides." Aha, Mr. Northrup—whatever you are and I think I know!—allow me to alter your italics: "the blame lay on *both sides*." Aren't you going in for a bit of personification, yourself, personification of complex political organizations, representing many radically different interests, as units with no diversities of opinion within them? Aren't you assuming that, for example, the war between Germany and Britain is simply a matter of the eighty-seven millions of one country working together, in perfect harmony and unity of purpose, for the defeat of the similarly unified forty-five millions of the other? Aren't you, by implication, disregarding as devoid of influence on the war the financing of Hitler by British capital, the powerful Social-Democratic and Communist opposition to the Nazis, and other such trifles? And isn't that as bad and as common a fallacy as those you mention?

Now for the stories. The stories were good, as I think I mentioned before. Very good. I rate them thus:

1. "Goldfish Bowl"—MacDonald. A+. The analogy is very telling, though it cannot be carried too far without breaking down rather disastrously. The treatment of the theme could hardly be better.

2. "The Wings of Night." A+. Del Rey's distinctive style, or atmosphere, or whatever you want to call it, is too familiar to require comment. This particular tale has also a definite theme, but no moral; some intriguing details of Lhin's physical characteristics, and some intriguing omissions; and the ending is perfection.

3. "Recruiting Station"—Van Vogt. A—. With its spots of good writing, its spots of good characterization, its great scope, and its feeling of immeasurable relief at the end—which feeling

Smith has often tried unsuccessfully to achieve—this should have rated higher. It failed because it was far too bewildering for me.

4. "Day After Tomorrow"—Wentz. B+++. Whoever Wentz is I hope he returns. A little more likely background for the events of the story would have made this practically perfect.

5. "Runaround"—Asimov. B+. Not up to "Liar!"

6. "Describe a Circle"—Russell. B. Introductions taking most of the story's length I do not approve.

7. "The Embassy"—Pearson. B. Good story even in last place.

I now ramble on to another topic: errors in stories. In a brief discussion with some other fans the other day we agreed it would be impossible to cut out all scientific absurdities; and in my opinion it might be less fun reading unerringly accurate s-f—I enjoyed picking "The Invaders" apart. However, you might take the trouble to eliminate such errors as have no bearing on the import of the story. Some that might have been corrected are these: In the recent "Adam and No Eve" the following method for finding the circumference of the Earth is given: "Figure it out for yourself. Pi-R-Square. The radius is eight thousand or so"—And in the current "Runaround," Powell says, "First to get the cube of fourteen goes—seventeen forty-four!" and thereupon goes. Whereas the cube of fourteen is two thousand seven hundred forty-four. No doubt Powell got it by the $(10+4)^3$ method and left off the first term. Donovan should not have let him go.

Oh, well, maybe the authors do it to show the characters' befuddled state.

Anyone who has read or seen Gilbert and Sullivan's fantastic operetta "The Sorcerer," should have a fair idea who "J. Wellington Wells" is.—Chandler Davis, 309 Lake Avenue, Newton Highlands, Massachusetts.

Probability Zero stories are to be submitted by readers, remember. Get going, you liars!

Dear Mr. Campbell:

Honestly, now, where do you get all the good stories that you have been publishing lately? If you don't stop making each issue so uniformly good, I'm going to write in some month and vote each story first place. That'll fix you!

I must admit, though, that I don't really mind—"Beyond This Horizon" is some story. Excluding the fact that the narrative is broken up with scientific detail, like a radio program with advertising, the story is good. Including that fact, it's excellent.

Second comes "Strain." "Co-operate—or Else," and "The Eagles Gather," run third and fourth, so close that it's a photographic finish, and I don't even have a stop watch to see which is ahead. These stories all have an intellectual appeal which I always prefer to pure adventure. Maybe it makes me think I'm intellectual or something. Anyway, my vote is always for that kind.

The article, "The Fatal Coloration," is fifth and "Monopoly" sixth. It seems to me that "Silence Is—Deadly" is a case in point of your editorial in the same issue. I can't think of any way to establish radio silence right offhand, but this story suggests what an excellent weapon it could make. Maybe you *should* be careful, and not be "Too Good at Guessing."

And now, "Probability Zero!" (By the way, I like the picture in that heading.) I don't like that time-travel yarn L. Sprague de Camp dreamed up. It's nutty enough, to be sure, but not nearly as beautiful a whopper as the others were. "Time Pussy" is best. I'm eagerly awaiting the next edition of this department.

Some editors apparently publish only letters praising their magazine. On the other hand, you usually publish those letters which complain about something. Of course, it's more stimulating your way; the majority of your readers can have a swell time getting mad.

Now there's that dope that wants Astounding small size. No, two dopes. One of them is keeping back issues. So am I. To be sure, I have been wondering how I could bind the two parts of "Second Stage Lensman," the part printed on small paper and the part on large, into one book, but you can solve that problem easily. Just reprint it along with the other stories we fans have been begging you to return to us.

Then there's that weak-minded mug who calls "There Shall Be Darkness" fantasy. It had a depth and beauty of setting that is a little more common to fantasy fiction, perhaps, but the story was really science-fiction.—Rosella Rands, 304 D Street N. E., Washington, D. C.

Think I've always wished Doc Smith would do was to describe carefully a Rigellian city. Rigelians, remember, have sense of perception. What do they use for advertising signs? Penetrative sense like that would make art work strange and fascinating, too!

Dear John:

What's this? Two consecutive issues with derogatory comment about the writing of E. E. Smith, and not a word in his favor! The very nature of the attack precludes the entry of friend Smith into the fray, so if I must, I must—and I

proceed to take up the sword and the fourth-order zone shield. Watch out, everybody—even you, Doc. I can't promise not to nick you when I begin swinging Excalibur.

In this issue it appears that "Wild Bill" is still rather wild. He would have Dr. Smith confine himself to the Solar System. Talk about a bird in a gilded cage! Such a procedure would tend to stress one of the two most threadbare conceptions of science-fiction—the stereotyped interplanetary, rocket-drive-transported type of "civilization" which, it seems, all the authors copy from one another. Once in a while we run across an interplanetary story which is not based on this standardized "culture," but it is only in the intergalactic stories that we have a fair chance of getting something different. (The other "standardized" theme to which I have reference is the "Time Travel" group of stories. Here, as in the first group, an exception appears occasionally, but the greater percentage of stories in these two classes are, too apparently, all "cut from the same cloth." It is generally recognized that "time travel" has a probability zero, or less, and unless I desire the relaxation afforded by pure fantasy—Miss Moore's specialty—I prefer my science-fiction stories to have both a high plausibility and at least a theoretical possibility. That's one reason I like Dr. Smith's stories.) To continue, I quote from—myself—thus: "We have little opportunity, outside of the doctor's stories, to visit even our nearest neighbors in this minute galactic cluster of the First Universe! We, who aspire to traverse the outer void to . . . many another Universe!" Unquote. I never did forgive Doc for not taking advantage of that thousand kilometer "tank chart" in the Skylark of Valeron and showing us some really distant places.

However, with that point in favor of the locales of the Smith tales, I must register one against his stories of late—especially "SSLensman." To paraphrase a comment of ye editor, "—story attempts to cover too much in too few words. —do not develop sufficiently each *level* of the narrative." For instance, he did a beautiful job: of portraying the Norlamin civilization; of the "castaway" sequence in "Spacehounds"—and, more recently—of the action between Kinnison and the demented Arisian in "SSLensman." The skips and gaps of which I am beefing show up plainly in, for instance, the "Cartiff" sequence in "SSLensman" and, most particularly, in the attempt in this story and in "Gray Lensman" to include too doggone many of these "sequences," which break up the direct thread of the story and are not too well developed. They should either be developed more fully or eliminated as nearly as possible.

On one point I will agree, with reservations, with Mr. Hoskins. Outside of those exceptions mentioned in the letter of Mr. H., the good doctor

is, very noticeably, not as good at character drawing as some of your other top-notchers. For instance: The characters in Part I, this issue, of "Beyond This Horizon." Excellent work! I also agree with Mr. H. that *all* good STF and fantasy stories have a definite human-terrestrial reference point. And, apparently, STF-magazine covers! Note the April, 1942, cover of Astounding!—L. M. Jensen, Box 35, Cowley, Wyoming.

No seismologist, but he's a Californian.

Dear Mr. Campbell:

Here are a few comments on "Day After Tomorrow" in the March issue. Besides being a good yarn, it is the first that I remember that was based on seismology. Is the author a seismologist, by any chance? He seems to be acquainted with the earthquake history of California. The scientific base to his story is just right—a little in advance of the present, but not too much.

The idea of touching off a destructive earthquake by means of an explosion is not too fantastic. Some years ago a seismologist published a paper on "Lunar Triggering Effects in California Earthquakes." While the evidence was not conclusive, a small majority of the shocks studied had occurred when the moon was overhead. And if lunar attraction could start an earthquake, why should not a sufficiently violent explosion start one?

Now for a small brickbat or two. The idea of detecting the condition preceding a quake by measuring horizontal angles is all right, but I think that such angles should be measured to seconds, rather than to minutes. A theodolite of the required precision is not exactly small, and the angle measured would need to be repeated a number of times at each measurement to be really precise. If I were looking for an approaching earthquake, I would use a tiltmeter, one that could be left alone in a hidden spot and read at intervals.

There isn't too much to quarrel about over the ink-writing (?) seismograph. Modern seismographs record with a light spot on photographic paper, largely because a beam of light has no weight and no friction where it touches the paper. However, by using a recently developed vacuum-tube amplifier, a seismograph recorder writing with ink could be designed for use with modern electrical seismographs.

I have only one kick about the new size—it came at the wrong time for my schemes. I had planned to save and bind up in some way the four installments of "Gray Lensman," but the two page sizes rather spoiled my plan. I suppose I shall compromise by filing the story in an ordinary file folder.—Bernard C. McGee, 1409 Kennedy Street, N. W., Washington, D. C.

Continued from page 6

Most of those goods are going to be utterly new things, too, made of new materials. That silver and gold is a symbol of the change. Silver is one of the metals anciently known that has never come into its true, deserved place in the scheme of things. It's always been a second-line jewel and monetary metal. As a jewel metal, it tarnishes; as a monetary metal its value isn't high enough to make it practical. A "silver dollar" is too darned heavy to carry comfortably as it is, and it doesn't contain even a close approach to a dollar's worth of silver. It's a paper dollar printed on metal, and could be better replaced by more durable and considerably lighter stainless steel.

But silver is the chemical construction metal par excellence. Chemical engineers would love to use pure silver-pipe systems, reaction vats, pressure stills and industrial chemical ware—if the price were not artificially supported because the silver producers still believe they have a jewel metal. As an industrial metal, thousands of tons of silver could be used every year, and the silver mining industry really boomed into a large-scale, low-cost industrial producer.

This war—with silver and gold and steel bicycles—may do that.

There are ninety-two elements in the table—and we haven't really used a good full half of them. A lot of the rest, the unused half, are *not* "rare elements"; they're unusual industrial elements. Titanium deserves a lot more use than it gets now; there's an excellent chance that it will be used more shortly. There's a lot of it in Virginia, and it makes an excellent grade of steel. Zirconium isn't rare, either; it can be used to replace manganese in steel manufacture to some extent. But there are a number of metals and metal alloys we need for the little household-gadget sort of thing. Lamps and cigarette lighters, art objects and electric mixers. Magnesium metal is going to be far more plentiful because of the bomber program; it will make nice vacuum cleaners because of its lightness. Beryllium may be used a lot more, perhaps alone, but certainly in alloy. (It will make a beryllium-silver alloy as hard and strong as steel, with silver's pleasing whiteness, that will not stain or corrode easily. Tableware that didn't scratch so easily should be popular.)

In the last two decades, two metals have come into household use from laboratory or industrial use only. Chromium was a metal known only to chemists before 1920; magnesium was known only in the "milk-of-" form. Several metals have, because of new manufacturing methods, sneaked into homes in completely new uses almost unnoticed. Zinc, because of the die-casting developments, became the standard structural metal for small, light-load complicated metal parts such as

typewriter frames, orange squeezers and similar gadgets. Antimony metal pops up in surprising places, too; a lot of "lead" cast objects have lead in them only as an impurity.

Even more surprising metals have large-scale industrial use in places where they "obviously" can't be used. Calcium, so active a metal that it will corrode away to powder in an afternoon if exposed to air, wouldn't be considered suitable for any exposed use. But it happens that a small amount of calcium metal added to lead makes lead harder, tougher—and more resistant to corrosion! Telephone cable sheath is a lead-calcium alloy; incredibly, storage-battery plates which spend their life in strong sulphuric acid under conditions of terrific chemical violence, are hardened with calcium!

By cutting off some metals—antimony is one of those; it used to be the standard lead-toughener—and by consuming all the available supply of others, while roaring for more, war is forcing industry to learn new, better ways. No tin? Then what about the tons and tons of solder used by plumbers, electricians, telephone and telegraph companies? That contains thirty-eight to sixty-two percent of tin—or did. Now it is beginning to contain arsenic, antimony, bismuth, cadmium, silver, a dozen odd elements.

The metals we use, the processes we use, are normally determined far more by custom and by what "everybody always does" than by sound science and economics. It's almost an absolute certainty that there are available better, cheaper alloys, and better, cheaper methods for a very large and very important number of the common things of everyday life. Metallic titanium could just as well become a common household structural or decorative material. Centrifugal casting for faster and hence cheaper production of machine parts is being enormously developed. It has already been discovered that calcium can—improbable as it once seemed—become a useful alloying element. Well, there's strontium and barium in the same family; they may show up in ash trays and typewriter frames before the war's over.

You can be prepared for one absolute certainty; when this war ends, you will never, never, never get back to the way of life you were accustomed to. The immensely expanded industrial facilities, the immensely improved methods, the new materials, the utterly new products, the science fiction come into industry, has already blasted the old way into the dust of history.

You can never go back.

You'll have to learn to spend at least three times as much as you ever did before, you'll have to learn to get along with three times as much of everything. We'll have too much, know too much, to let you do less.

The Editor.

HERITAGE

By Robert Abernathy

● There are two ways of considering heritage—the heritage of physical kinship, of blood and racial descent, and the heritage of an intellectual, spiritual sort. And which is the more important?

Illustrated by Kolliker

If everyone will please keep his seat and refrain from mobbing the platform, I will make a very confidential admission. I am closely acquainted with the great time traveler, Nicholas Doody.

Now, I am not trying to add to the multitudes of pseudo-Doodyesque anecdotes which are perpetually being decanted into unoffending ears in Pullmans, clubs, cafés, and private drawing rooms, and which have undoubtedly driven countless persons into mental declines and padded cells. Neither am I endeavoring to verify either of the two prevailing opinions respecting the inventor of the time machine—one, that he is a half-cracked young genius whose invention's usefulness is rendered null and void by the immutable laws of time; the other, that he is an insanely selfish, misanthropic, antisocial wretch who is deliberately withholding from the human race a gift of incalculable value.

In sober reality, Nick Doody is a tall, dark-skinned, dark-haired young man of twenty-seven, who looks like a cross between a tennis champion and a naval officer. He is likable, friendly, and not at all standoffish, even regarding his remarkable invention—which he freely admits to be the result of sheer accident rather than of calculated research on his part. Almost anyone in twentieth-cen-

tury America, he says, might have done it in the same way; the materials are within the grasp of practically everyone. The machine itself has all the simplicity of the first crude beginning of any new science; its very lack of complexity is what makes it such an enigma to your average Einsteinian physicist. But if it were taken apart or put together before you, your wife, or the man across the street, you would wonder why you didn't think of it yourselves.

As for the popular opinions of Doody—the first is hokum and the second is hogwash. The inventor labors under no mystical ideas about the immutability of the past or the inevitable predestination of the future; his machine affords just as much opportunity for control of the fourth dimension of time as ordinary tools offer for managing the usual three. However, neither is Doody subject to any illusions about his sacred duty to humanity being to reveal the secret of the time machine; he believes that humanity has made a quite adequate mess of its world in three spatial dimensions, and that to add a fourth would only complicate modern life to a point where nervous breakdowns would become as common as shiny seats on blue serge trousers.

Being a normal young fellow with a taste for adventure, he

uses the time machine solely for minor exploring junkets into past or future ages, with no purpose save sheer amusement. In the process of these trips, as you might expect, he has seen and done many things which for sheer improbability outdo the wildest imaginings of the science-fiction writers.

It is possible that by making public the substance of a conversation which I had with Doody a few days ago—to be exact, on the evening of November 20, 1976—I may succeed in silencing a few of the macaw-voiced critics who have been loudly and raucously insisting that he turn the principle of time travel over to the American government.

"Johnny," remarked Doody, tête-à-tête with me over an excellent dinner served by the ménage of Elbert's Exquisite Eatery—or is the adjective Elegant? Perhaps you know the place—it's on Broadway, one of the most dignifiedly popular cafés of old New York, dating back to 1953. "Johnny, did you ever have any difficulty in proving that you are a man?"

"Not even when I went into the army," said I, leaning my elbows on the tablecloth and wondering at him frankly. "Why?"

Doody grinned, flashing two thirds of a perfect set of even white teeth. "I did, Johnny; once upon a time that hasn't



happened yet. I stood trial on the question of whether I was or was not human, with my life as well as my reputation dangling in the balance. I conducted my own defense, such as it was—and I lost my case.”

“Well!” I exclaimed, hoisting an eyebrow. “What did they prove you were—a throwback to the chimp?”

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“No, not quite,” replied Doody, smiling comfortably, though reflectively—in that curious manner which is his alone, of looking past a companion into far, dim vistas of time. “You know, I’m not sure that I lost that case, after all. Things were getting pretty hot, and I didn’t delay my fade-out long enough to see. Maybe my final argu-

ment settled the prosecution’s hash, although the jury had already brought in a verdict of guilty—guilty of impersonating a human being, a crime punishable in that far-off day by death. I’d like to go back to that era and find out; but my little gadget has practically no selectivity at such extreme ranges. I couldn’t even be sure of hitting

the right millennium. It would take a much more delicate and complex instrument, with a power source superior to my two dry cells, and a lot of other stuff I haven't bothered to work out and never will work out. Well, that's all beside the point, which is that this little experience of mine set me wondering."

"You wondering—along what line?" I wanted to know, understanding perfectly that I would get the story in Doody's own good time.

"Ah, that's a secret," he evaded amusedly. "Seriously, though, Johnny, I'll tell you the tale, and we'll see whether it doesn't evoke some speculation on your part—not overly pleasant, some of it. Push the signal for a waiter and order more champagne, Johnny, so they won't be considering giving us the respectfully firm send-off; and I'll give you the straight of it."

It seems that Doody, on his last safari into the dark hinterlands of the unexplored æons, had decided to try a longer jump across time than he ever had made before. It happened that on a previous excursion into one of the odd nooks and corners of chronology, he had had an intriguing little chat with a savant of the time, by name, I believe, Rudnuu. Something-or-Other—the surname being placed first—who belonged to a period which Doody estimated in the neighborhood of 13,000 A. D. (They had no system of dates reconcilable with ours, and their records of the elder civilizations of the Indo-European and Neo-European cycles were incomplete and unreliable.) This fellow, who was something of a philosopher and historical student as well as an important member of the technocratic government of his era, was frankly worried about the future of the human race.

In Rudnuu's day, eleven thousand years from our own, the

civilization of the machine had advanced so far on Earth that there was no longer need for men to labor, with muscle or with mind. Briefly, the worldwide society of abundance had come at last into being; and, as the result of every culture which eliminates natural selection by permitting the survival of all, humanity was swiftly going to pot.

Of course, that was nothing new; it has never been new. It is the old, old cycle of man—hardship, ingenuity, civilization, ease, degeneracy, hardship again.

But in the fourteenth millennium the mechanical refinement of life had risen to such a high that the unescapable collapse must be more than catastrophic. The scientist-leader believed that it would be final; that mankind would follow many another dominant breed into the long oblivion of extinction. Unchecked, morbid mutation, without selection, was precipitating the race into a bottomless slough of physical and mental decay.

Scientist Rudnuu had enough curiosity—a quality well-nigh unheard of in his day—to wonder, with a touch of wistfulness, what reasoning race would inherit the Earth when man was gone. Whatever that future breed might be, it must develop from one of two definite groups: either from among the few surviving wild species, which by tenacity and cunning had held their own on the outskirts of human civilization, or from among the tamed animals which man had continued to rear through all these ages for pets or servants, such as dogs and cats and some of the apes.

Even now the members of those groups were far better fitted to rule than decadent humanity. Fierce and quick and clever the wild things had grown, driven by the life struggle of existence in unnoticed crevices and hiding places of a world monopolized by man; strong and sharp-sighted and intelligent the beasts

of man had become, bred through the hundreds of centuries for physical and mental perfection. Strong new races, lacking only the skillful hands and the tools of fire and metal to push man off the Earth and claim it for their own.

"So, then," said Rudnuu, with a shrug of defeat accepted sadly yet without bitterness, "the end is drawing near."

The upshot of the scientist's aeration of his views was that Nick Doody, in a hotel room in Brooklyn on a gray evening of 1976, set the simple adjustment of his absurd little instrument and closed its single switch. At once his three-dimensional being in space no longer existed; its four-dimensional counterpart, tenuous, fantastic, and unreal by human standards, was swept away along the world line of the Earth, rushing faster and yet faster, like a fleeting phantom, past the rise of empires and the fall of peoples, past the births and deaths of four hundred generations, to come to a final stop at a point twenty thousand years in our future—nine thousand years beyond the day of Doody's gloomily prophetic friend.

Though one is unconscious of the flight through time, the sensation, as the synthetic extension through the fourth dimension collapses once more into normal space, is one of inexpressible relief. Doody, gasping and dizzy, sank down upon a heavy carpet of moss and rested for a time, his breathing becoming more even and his eyes refocusing on this unknown future world.

What had been a blurred gold-and-green haze before then became the sunlit summer verdure of a great forest, a forest that was the work of ages. Giant trees, with spreading limbs and twisted roots that clutched the earth protectively, rose on all sides to support the green, leafy ceiling overhead, shutting out

vision; the hard, solid surface which supported his back, but which now was becoming painful to his spine and shoulder blades, was the rough bark of a massive trunk with the gnarled branches of an aged oak.

Somewhat giddily, Doody scrambled to his feet once more and stared around him. In all directions nothing was apparent but the primeval forest, hardly an insect song stirring the still, sultry air of the midsummer noonday. It had been autumn when he closed the switch; but that signified nothing. Nevertheless—unless the world lines had become unthinkably tangled—he should still be on Long Island. But if this was Long Island, real-estate values had evidently suffered a sharp decline since the late twentieth century—to say nothing of Rudnuu's nearer day, when from the Catskills to the Susquehanna had stretched the great world city.

"Well!" remarked Doody under his breath. "So the old boy was right, after all, and the human race has handed in its checks." It was easy to believe that, there in the virgin woodland, seeing no trace of human life and knowing what Doody knew. He shook his head to dispel disgust; he had preferred to think that mankind was made of sterner stuff.

Quickly and efficiently, he made certain that the equipment he always carried on such expeditions—a camera, flashlight, camp ax, and automatic pistol—was still with him and ready for use. Also, with a trace of gingeriness, he felt the special inside pocket where, just in case of emergencies, he generally packed a pineapple—not the Hawaiian kind.

On consideration, he unfastened the little, sharp-edged ax, for use in blazing a trail as he explored these woods farther. If he could not find his initial location again for the return to his own time, he might find himself in any one of a number of awk-

ward spots—under the wheels of a motor car, or in someone's boudoir.

Doody strolled away down the gentle, tree-covered slope, with the vague idea of eventually reaching the ocean shore which could not be far away. Dead leaves crackled, shockingly loud, beneath his feet at intervals, and birds twittered in fright and fluttered confusedly away from the branches where they had been drowsing in the shady heat; yet as he proceeded, perhaps because he himself was the child of a highly advanced civilization, he could not shake off the illusion that this whole pleasant woodland was merely an extensive municipal park, or could he suppress a guilty feeling whenever he knocked a gleaming chip or two out of a tree trunk as he passed by. Objectively, he noted that the forest was entirely devoid of such common but galling annoyances as tangled and unlovely undergrowth, poison oak and ivy, and thorny trees and bushes; tall, graceful ferns and leafy shrubbery gave it an almost cared-for appearance. Of course, the whole Earth had been purified of such useless and troublesome flora many thousands of years ago, the planet turned by science into an Eden for the pleasure of a declining, luxurious race that—apparently—was gone.

Still, Doody glanced up hastily when, just as he was about to gash the straight, round trunk of a particularly fine Norway spruce, he heard a twig snap in the nearer bushes. His subconscious still half expected to behold a wrathful park policeman and be summarily pinched for trespassing, wanton vandalism, and wholesale destruction of public property; but the half a dozen warlike, seminaked figures advancing toward him at a swift trot looked like no policemen. Doody had ever been arrested by.

They were short but well-pro-

portioned and splendidly muscled figures, clad in clothing which even when new had been scanty, but which none the less informed Doody's alert eye that their people had invented—or retained—the knowledge of the loom and weaving. More immediately important, they brandished wicked-looking spears and knives, knowingly fashioned of gleaming bronze. And that, in turn, meant a tremendous past of evolution through the use of wood, of stone, of metal—or an equally long background of degeneration.

But these people did not look like degenerates; they resembled more an idealist's conception of the Noble Savage. That idea, of course, was fantastic; even nine thousand years could hardly have wiped out the corruption, the decadence, the utter decay of mind and body that had marked Rudnuu's machine civilization. This must be a new stock—but from where?

The leader of the little band, a powerful, stocky fellow with a mane of lank, uncombed red-brown hair that mingled with his great beard to fall to his heavily muscled shoulders, pressed forward before the rest to approach Doody, who stood erect, shoulders thrown back and head haughtily high, waiting with an immobility which he hoped was impressive—his right forefinger meantime crooked tensely about the trigger of his loaded automatic, where it rested in his pocket with the muzzle pointed toward the savage. The latter just might try to use the sharp, bronze-headed javelin in his hairy hand, which would prove that he thought Doody, as a visiting god, a failure; but a touch of the finger would send three .45-caliber explosive slugs at that formidable-looking head man, and Doody would at least make a name for himself as a very dangerous sort of devil!

The barbaric leader paused before the tall stranger, half crouching as he stared; he fidg-

eted for an uncomfortable moment, then sank slowly to his knees in the grass at his sandaled feet, bowing his shaggy head in sudden humility.

His next move startled even Doody, who had had previous experience in godhead far back in the icy Pleistocene. Carefully the kneeling savage laid his long-hafted spear crosswise on the earth before the unmoving Doody, and beside it his broad-bladed dagger of hammered bronze.

Evidently these people took their gods seriously; sullen yet awed, the six remaining hunters advanced one by one, similarly to do reverence and unburden themselves of their weapons. Some of them bore a quite inclusive equipment for war or the chase; when the impromptu disarmament program was finished, a sprawling heap of spears, daggers, and short, leaf-bladed bronze swords, as well as a couple of heavy stone-headed axes, lay on the ground at Doody's feet. He was uncertain of his part in this little ritual; if they expected him to carry all those away, he was afraid he wasn't equal to the job.

The leader arose, spread both calloused hands above his head, palms outward—the old, old gesture of peace—and spoke, in a voice which was gruffly tremulous, a gutturally monosyllabic tongue.

"It's all Sanskrit to me, old boy," said Doody, shaking his head half amusedly as he became aware of the incongruity of his position—the anachronistic traveler from the forgotten past, receiving deific worship from the uncultured children of the far future in that little, leaf-shaded forest clearing. But an instant later he was shocked and appalled as the savage, apparently misinterpreting his mere gesture of negation, flung himself frantically to the ground and pressed his bearded face into the soft leaf mold, his hands and body quivering in abject terror. It

was quite plain that he conceived the mysterious avatar to have denied his homage, and believed himself in peril of instant destruction.

At that moment Doody thought of an article which he should have remembered before—the convenient little telepathic mechanism which Rudnuu, back in the fourteenth millennium, had called a "translator," and which even now nestled in Doody's inside coat pocket. Hastily fumbling for the flat little cylinder of the device, he unfolded its three thin, silvery aluminum grid plates, equivalent to the earphones of a radio headset, and slipped them over his head, sides and back; the vibration given off by the apparatus, which derived its feeble energy from the pulsation of the veins in the temples on which it pressed, hypersensitized the language centers of the human brain to such an extent that, with a little concentration, Doody could address the savages in their own idiom, and their words, coming to his ears, would be resolved by his brain into English terms and phrases.

At the moment he wished ardently for an all-purpose telepathor, which would enable him to read the thoughts of his new acquaintances—an achievement which could be very useful. However, one cannot have everything.

"*Ah-poonay—rise,*" so commanded Doody in a deeply impressive voice. The rapport linking of his mind with the linguistic centers of his listeners' brains brought the alien words easily to his lips. "I will not harm any of you."

Tremblingly, abashedly, the seven kneeling warriors clambered to their feet and stood facing Doody in obvious unquiet—half a dozen fierce, mighty hunters of the woods, any one of whom, given a hold, could practically have torn the man of the twentieth century apart. Yet

their glances were sidelong, and they fidgeted before him like small boys caught throwing spitballs in school. Doody was surprised, although gratified. Most primitive races have at least a modicum of healthy doubt respecting their gods—enough to make them somewhat wary of accepting to readily anyone representing himself as such.

"Take your weapons without fear," he said reassuringly; then added, as an inspired afterthought, "I do not need them; I have means of slaying my enemies far more potent."

The savage leader advanced a step hesitantly, his shoulders hunched as if to ward off a blow, and knelt again to fumble with jerky fingers at the pile of arms.

"That we know, O Man," he faltered fearfully, eyes on the ground. "We know that your lightning strikes dead whomever you will."

Doody himself was slightly thunderstruck at the moment; his jaw dropped as he stared at the seven sturdy, humbly bowed figures before him. "Man," the savage had called him! If they did not believe him a god, why did they submit to him?

He made his voice steady, confident, as he said, not daring to make any inquiries for fear of betraying a lack of divine omniscience—one of the great drawbacks to being a deity among primitive peoples—"You must take me to your village at once." Since the translator told him that they had a word for village, he knew they must have villages.

"At once, O Man." The leader repeated the mystifying term, which he pronounced as if it were a title of honor. "We will take you to Kuvurna, and you shall speak with him."

"Who is Kuvurna?" demanded Doody, unable to suppress the question this time. "Your chief—king?"

The eyes of the barbarian opened wide in obvious surprise, which he with equal obviousness

endeavored to mask. Those eyes were large and brown in color, Doody noticed, with a curious wistful expression—hardly as fierce and bold as the eyes of an independent primitive man should be. “Do you not know who Kuvurna is? He is the Lord. He is our master, who rules over our village and over us all.”

This was a shock, because it sounded very much like competition. But Kuvurna could be dealt with when the question of Kuvurna came up. “Lead on!” said Doody.

As he trudged northward through the parklike woods in the midst of his barbarically armed escort, which moved in a subdued, respectful silence, Doody found time to notice the curious uniformity displayed by these people. They were of even stature, about five feet six or seven; their hair and eyes were always reddish-brown; different, he thought, from any hair or eyes that he had ever seen before, yet somehow vaguely familiar. Their skin was quite white, though browned by the sun to which it was largely exposed. They were strangely different, less noisy and garrulous than any savages whom Doody had ever met before, utterly unlike the hairy Paleolithic brutes who had wanted to make living sacrifices to him forty thousand years before—yet for some odd reason he could not rid himself of the nagging conviction that somewhere he had seen these people before.

“Time traveling gets a man mixed up like the dickens,” he growled to himself in English, passing a hand through his own curly black hair.

The village huddled about the base of a low, partially tree-clad hill; the ocean glinted, barely visible, beyond the slope on which it lay. It was about what you might expect of a backward bronze-age people—a squalid, degraded-looking assemblage of

huts, built in this case of fairly substantial logs and timbers, in the manner of early American blockhouses, but with straw-thatched roofs, such as one still finds once in a while on European peasant cottages. The size of the dwellings clearly indicated that, like Dyak long houses, they were meant to hold several families.

The thatch, of course, meant an agricultural community rather than a hunting tribe; and, indeed, fields of tasseled maize were apparent beyond the village on the seaward slope of the island. For meat, however, they still depended on wild game, as was evidenced by the hunting party which Doody had encountered, and the fact that no livestock, or corrals or pens for livestock, were in evidence.

Another feature which Doody noted with mild surprise was the total absence of the usual canine riffraff of savagely barking, cowardly mongrel dogs which usually greet visitors to a savage kraal. In lieu thereof, innumerable naked and unbelievably dirty brats played and squabbled in the sun-baked mud of the crooked streets, while their fond mothers—clad quite as insufficiently as their mates in a single garment of coarse fabric which was draped from the waist to an undefined distance above the ground—stood about in chattering clusters, comparing extravagant notes on the spectacularly precocious attainments of their own particular offspring. A few males were in evidence, idling in doorways and conversing in rough voices, occasionally whittling lazily at sticks which might some day become spear shafts or ax handles; under the noontide heat, activity was at its daylight low.

The hamlet was laid out according to no humanly understandable plan; in fact, it had apparently never been laid out at all, having merely grown Topsy fashion. The little party consisting of Doody and his guard

of honor stumbled through the tortuous lanes that twisted erratically among the hovels, and at last debouched unexpectedly, at least so far as the visitor was concerned, into a wide, grassless clearing in the midst of the village. This, though far from tetragonal, evidently passed for a town square.

Doody, who had until now remained wholly unimpressed by the sights of the village, drew in his breath in sharp surprise when he saw what occupied the middle of this naked, dusty space. He had been totally unprepared for a ten-foot stockade of sharpened stakes, sunk deep into the earth, which was heaped breastwork fashion around their bases; a hundred by fifty feet, it might be, laid out in a great rectangle. It looked like a palisaded fort, formidable to the primitive tribesmen; or perhaps—Doody’s quick mind leaped over the possibilities—it was a barrier to prevent mere mortals from trespassing on sacred ground.

He did not need to inquire. “This, O Man of the forest, is the dwelling of Kuvurna, in which he remains always, hearing our every prayer, granting such as are right, refusing such as are evil. Kuvurna knows all, sees all, hears all, smells all.”

Before Doody could even attempt to grasp the significance of the curious final clause of the formula, having reference to Kuvurna’s olfactory prowess—*phew*, thought Doody, I wouldn’t care to be that sharp-scented—the chief hunter had detached himself from the escort and advanced toward a small gateway, closed by a heavy lattice of wood, which opened into the nearest face of the rampart.

Pausing, he knelt before the gate, laid his spear carefully on the bare earth, and dropped his knife beside it, even as he had upon prostrating himself before Doody. To the mind of the American, it became plain that whoever passed with these igno-



rant people as a god was not exactly carefree in his high office. He was evidently irked by the possibility of assassination.

The hunter rose and stooped to pick up a long-handled stone hammer which leaned against the stripped poles beside the entrance. Powerful muscles rippled under the brown hide of his back and shoulders as he raised it above his head and swung it in a deafening blow upon a great bronze gong which hung above

the gateway. The dully musical booming echoed through the village, woke the sluggish afternoon echoes, penetrated into the secret interior of the forbidding fortress temple.

As Doody watched narrowly for signs of the reception awaiting him, a chain rattled audibly and the lattice swung slowly inward, the person performing the office of gatekeeper remaining invisible from outside. Doody, straining, caught a glimpse of

dim green shadows beyond the gate; then the seeker of admittance, with one more profound genuflection, rose, straightened his shoulders, and with the resolute caution of one goose-stepping over a parade ground cobblestoned with rotten eggs, marched into the inner courtyard. The gate swung rapidly shut behind him.

Doody, still puzzled, turned on one of the savage warriors at his

elbow. The fellow leaned heavily on his spear, his long red mane falling about a rugged, open face from which frank, undeceitful brown eyes turned questioningly toward the other.

Again Doody felt the overpowering sensation of having seen these people—those curious, worshipful eyes, in particular—somewhere, sometime, long ago. He put the ridiculous feeling from him and inquired brusquely:

"This Kuvurna of yours, friend. What is he like—what does he look like?"

The hunter's gaze was startled. "He is like you. He is like me," he illustrated correlatively. "He is a Man, and you are a Man; but I am not a Man. Because he is a Man we serve him, all of us, and give to him our best fruits and game, and make for him the drink of Men which is not permitted to us."

"Drink of the gods," muttered Doody quizzically to himself, trying to absorb one statement at a time. But—he wondered—was he going batty, or were his ears wronging him? "Listen," he said more loudly than was necessary. "If you aren't a man, then what the devil are you?" He was quite past worrying about suspicious queries; anyway, he ought to see Kuvurna, whoever Kuvurna was, right away, and then he might get straightened out. At the moment he felt a marked sensation of floundering—

The inquiring brown eyes were shocked at his question. "Are you not a Man, and do not Men know everything? But I am only a dog."

Doody felt faint, and somewhere a wholly primitive and probably unjustifiable fear crawled out of hiding and started up his back, beginning at his lowest spinal ganglion and squirming toward the base of his skull, to raise the short hairs there and pour ice water down his back with demoniac abandon. Abruptly everything

around him seemed far away, alien, and unreal. The motionless, patiently waiting village hunters around him, the crowds which were timidly gathering against invisible barriers of apprehension in the freakish by-streets—the seeming women who stood watching the scene stolidly with babies parked on their ample hips, the seemingly human children who sprawled out into the square, noisily seeking new worlds to conquer in the making of mud pies—all were like creatures of an uncanny dream. For Doody knew now where he had seen those great appealing brown eyes, that particular quality of straight red-brown hair. Certainly he had known these people before. He had hunted with them, talked to their uncomprehending ears when he held their silky heads between his knees, on many an occasion in the past when they had gone on four feet instead of two—

It was only for the moment that the primitive fear held the fort in the region of Doody's medulla oblongata. Then he gave a snort of disgust and forced it back down into the realm of suppressed instincts, where it belonged. The statement which the creature who regarded him so worriedly had just made might be almost incredible, but it was not necessarily terrifying. The sense of strangeness persisted, though, as his conscious mind checked off one little-remembered item after another—tiny earmarks, unnoticed at the time, of the veiled unhuman.

Doody realized that his silence was growing awkward. He made himself speak again to the being that was not a man:

"Er—what does Kuvurna want of me?"

The warrior's gaze was that of a puzzled dog. "Does not a Man wish to speak to a Man? It is not for us to know what they will say." He paused, then added eagerly, "Perhaps now we

will have two Men to rule over our village."

"If you think that, my boy," commented Doody in the private recesses of his own mind, "you don't know your men." He was framing a reply suitable for the other's ears, when its necessity was obviated by the return of the messenger who had vanished into Kuvurna's stronghold.

It was the sudden hushing of the subdued crowd murmur that caused Doody to wheel and behold the dogman who had entered emerge from the gate and stride swiftly toward the visitor and the hunting pack which had brought him, standing in an isolated huddle halfway between the edge of the wide, sun-drenched square and the high, bare palisade of Kuvurna's temple.

The silence was funereal by the time he reached the group. He knelt in the dust before Doody, and announced, his head bowed, but his voice raised to reach the breathlessly waiting hundreds about the southern side of the square:

"Kuvurna will see the Man of the forest!"

"This is well—for Kuvurna," replied Doody, in a voice that rang cold and just as clear. The silence was fractured by a swift, awed chorus of gasps which wheezed into an overwhelmed hush as Doody, tall, straight and impressive, stalked unattended toward the postern gate of Kuvurna's citadel.

Doody remarks that brass has carried him through many a narrow place in his career in which lead would only have totally wrecked his chances. He had a hunch—which grew stronger as he advanced on that ominous gateway—that bullets were no good here. So he was banking on a good front, plus, of course, the emergency getaway of the time machine in case things went cataclysmically wrong.

Before the gate he stopped and bent quickly to lift the long-han-

dled stone hammer; twice and three times he swung it thunderously against the heavy lattice, shaking it almost from its wrought-bronze hinges. Then he tossed the implement scornfully aside and folded his arms in lofty disdain, controlling his breathing, however, with some effort. Swinging that Thor's hammer was no man's picnic.

After a scandalized pause the barrier wobbled slowly out of his way, and Doody, head up, marched in.

Inside, he halted for a moment only to orient himself, and to be impressed, after a fashion, under his assumed hauteur, by the fortress temple of the dogmen's god. In the shadows of the high palisade squatted a long, low building of hewn stone, built like an arsenal or fort, with the grim, high, narrow window slits of a medieval jail. The door was set far back behind a shadowed archway, from which the interior gloom seemed to spill almost into the sunlit outdoors, down the massive stone steps that ascended to the portal.

For the dog folk, with primitive tools and muscular power alone, the structure must represent long, back-breaking labor, which likewise must be employed in maintaining the garden which filled the inner court; in contrast to the dusty square outside, ivy clambered over the rough walls of the temple, roses tumbled about the stone stairway, and verdant, resilient grass underfoot defied the blazing power of the summer sun whose hot rays slanted over the jagged palisade. The water which brought forth all this greenery from the stubborn soil must be carried little by little, day after day, by the sweating slaves of the ruler.

None of the priesthood which is maintained by every god of means was in evidence, but Doody had that jittery, watched feeling, as of intent eyes fixed on the back of his neck. So strong was the sensation that he

almost peered about the garden in search of concealed observers; but that would be to abandon his pose of nonchalance. He hesitated only momentarily, then advanced firmly to ascend toward the inset doorway.

The portal within the rough-hewn arch was massive and oaken, banded with strips of ornate bronzework. It stood a little ajar, opening on cool darkness within. It creaked only a little as Doody thrust it farther aside and slipped cautiously into the black interior—a hand in his coat pocket tense on the switch of his time machine, ready to snap it shut instantly if danger loomed near. He did not imagine that the fear-inspired reverence for the human overlord was all illusion on the part of the dogmen.

Inside the temple, to Doody's light-accustomed eyes, it seemed dark as the inside of a shark. He stumbled, banging his shins painfully against something that toppled with a most shocking crash; he thought that a rasping chuckle from the darkness mingled with the echoes, and became immobile, his eyes slowly beginning to adjust to the Stygian gloom which was unrelieved by the high, close-shuttered windows. Doody can see in the dark almost as well as a Negro; but it was only with great difficulty that he discerned vague, looming shapes in the obscurity, and thought he saw a flitting figure that could have been a man.

Then a voice came out of the shadows, a thick, greasy voice. "Make a light, Shahlnoo," it said heavily. "Let us see this one who calls himself Man."

A small flame flared suddenly in the darkness, illuminated dimly the interior of the temple—a flame of burning tinder, apparently, in the hand of a black figure which applied it quickly to a teakettle-shaped oil lamp, like those used by the ancient Greeks. The lamp blazed up with a smoky light, and the

shadowy forms resolved themselves.

Doody first saw the aged, shriveled little dogman, clad in a single dirty garment that left his skinny figure almost naked, who crouched beside the pedestal of the lamp. Then his eyes flicked rapidly about the interior of the temple, taking in the barbaric luxury displayed in all its furnishings. Great ornamental urns stood about the drapery-hung walls, and it was one of these which Doody had overturned in the dark; even now the light struggled feebly against the deep shades of the folded draperies. The chamber was like a somber courtroom of the Inquisition, or like some dim-lit crypt out of the tales of Poe—the product of a morbidly dismal imagination, utterly at variance with the healthy, outdoor cheerfulness of the dogman.

At the other end of the long room the little wizened priest passed with noiseless tread from right to left to light another lamp. The illumination in the funereal chamber brightened, and for the first time Doody saw the fat man who lay in gross ease upon a draped and cushioned couch against the farther wall.

Kuvurna was fat, fat with the disgusting obesity of a long life of overfeeding and inaction. His piggish eyes peered out from between rolls of flesh that threatened to swamp them; his cheeks were blubbery, his chins multifarious. His face was that of the last of a long line of degenerate French Louises. His body was massive, effeminate in its corpulence.

The dog priest spoke, in a voice dry and cracked as a dead stick.

"Do not move, stranger. The lightning of Kuvurna strikes down whom he wishes to destroy!"

Doody stood obediently motionless, but his eyes were busy. There might be a portable



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atomic-blast rifle concealed among those curtains over the man-god's divan. Those weapons had been built to last forever; some might have endured nine thousand years and remained in the hands of this last decadent scion of a fallen humanity, enabling him to reinforce man's age-old lordship over the dog.

"My lightning," drooled Kuvurna lovingly, his plump fingers fumbling among the bed clothing while his small eyes blinked at the light. "Be careful, impostor, or it will slay you!"

Mentally, Doody placed Kuvurna as a low-grade imbecile, perhaps even an idiot. A rank odor hung in the air; Doody sniffed, and wrinkled his nose disgustingly at its familiarity. If ever he had smelled cheap corn whiskey, he smelled it now. Drink of the gods!

No doubt the priesthood controlled the alcohol supply and consequently Kuvurna. But the god's life was precious above all else, since without him the priests could not continue to impose on their credulous and loyal fellow villages. Hence the fortresslike temple inclosure, the elaborate precautions and taboos.

"Kuvurna," remarked Doody loudly, "you are a great, swollen mass of corruption, and no Man worth the name!"

The deity winked stupidly; his blubbery face registered no expression. He heaved in vague displeasure at his visitor's frankness, though he was apparently incapable of rising. Doody felt a wave of revulsion in which he despised himself for being a man. If this was what civilization had done for the human race, thank God for barbarism, for blackest savagery!

The little priest was answering for his lord. "That is sacrilege, blasphemy," he spat in a voice like the snarl of an angry hound. "You are no Man or you

would not speak thus of another Man."

Kuvurna reared angrily, like a great, unwieldy sea lion, among his gloomy cushions. His skin, under the flickering yellow light, was an unhealthy, pasty white which had seen too little of the sun; his eyes were muddy and befuddledly vicious.

"He is no Man," he repeated, his thick fingers twitching. Doody rose stealthily to the balls of his feet; he knew that, on guard, he could beat the degenerate's slow reflexes ten times out of ten. All the while, though, another part of his mind was struggling to piece out the answer to the wider question; but it was like arranging a tough puzzle with the key piece elsewhere. "He is no Man, but a lying dog; and for his lie he must be put to death!"

"Just a moment," said Doody, and was surprised at the suave smoothness of his own voice. "Has it occurred to you that the entire canine populace, now milling about outside your palisade, believes that I am a Man? They will require explanations, in all probability, if I fail to emerge after going in so bravely."

That made no difference to Kuvurna, armored in invulnerable stupidity. But the shrewd mind of the little priest was clearly disturbed. He turned with nervous haste to address his so-called "master":

"O Man of the village, he speaks the truth. The Pack believes his lie; and, having been once convinced, they will not readily disbelieve. What shall be done?" Then, almost without pause, as Kuvurna mumbled to himself, making the words register on the surface of the stagnant pool that was his mind: "If the master will hear his slave, I would suggest that the case of this impostor be tried according to the customs of the Pack; and, if he be proved what he is, let him be incontinently put to death. Thus will the law and the Pack be satisfied."

It sounded somewhat fishy to Doody; but Kuvurna seemed to find the solution gorgeously simple—as needs it must be for his dim mentality to grasp it. At least, he nodded his well-nigh hairless, oversized head, and continued to nod it in dreamy affirmation for some little time. But the priest turned swiftly on Doody, his face hideous with triumph:

"Do you hear, O dog who calls himself a Man? You are to be tried by the council and your abominable lie made plain. Tremble, then, and howl supplication to the spirits of your ancestors, for pardon that you ever denied them!" His tone was ferocious, a canine snarl. Doody found time to wonder what the fellow's background was; he had seen dogs before who had been kicked into viciousness.

Abruptly, no doubt at some prearranged signal, from behind the dark hangings which masked the stone walls emerged a dozen of the dogmen, spears thrusting menacingly as they surrounded Doody. The latter made no resistance, save to shake himself once as horny hands grasped insistently at his arms; his life seemed safe enough for the nonce. He went with them quietly, out through the creaking temple door and through the arch into suddenly blinding sunlight.

The high priest followed to stand at the summit of the stair and glare down at Doody and his guard—so different, this, from the innocently adoring escort of hunters who had led him out of the forest—with baleful eyes; the eyes of any priest who beholds a rival to the god that is his very bread and butter.

"Take the impostor forth before the people," his old voice crackled savagely. "Take him and hold him there, till Kuvurna comes forth and the council of the Pack sits in judgment over life and death!"

The gathering crowd out in the sunburned square had surged

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nearer and packed more densely as the grapevine telegraph carried the word of great doings to all quarters of the dog people's village.

The air was stifling with dust and the odor of many bodies pressed close together—an odor which differed subtly from that of humanity in the mass. Only a little space about the palisaded gate remained still invisibly roped off; in it, clustered closely and silently together, the little group of dogmen who had discovered Doody in their forest still waited bravely for the return of their marvelous heavenly messenger. But when they saw him emerge hemmed in by the armed acolytes of Kuvurna, a captive, threatened on all sides by sharp spears, yet failing to employ any homicidal magic for his liberation—hastily they shrank back, appalled, into the throng, slinking away fearful lest they should be involved in the consequences of their own error. But Doody, on the sharp-eyed alert, thought he saw more than one sinewy hand tighten convulsively on a spear haft before its owner thought better of his half-formed intentions.

The sun beat down uncomfortably, and Doody was sweating stickily under his clothes, while striving to preserve an airy nonchalance in the face of the heat and the indignity of his close, rather smelly cordon of priests. The watching crowd, most of its eyes and mouths wide, was hushedly silent, save for the intermittent shuffling of bare or sandaled feet as this or that shaded his eyes over his neighbor's shoulder, squinting into the sun, and for the shrill little yelping cries of the children—puppies—who played in the rear of the assemblage.

Dispassionately, Doody considered the dog people once more from his vantage point—this time for what they were, rather than as human beings. They were not an unhandsome breed,

and were certainly well-made physically; and there was about them a gentleness, a humility, that the human animal lacks. Man had done a better job of domesticating them than he had ever succeeded in doing on himself.

There was a curious, wistful appeal in the great eyes of some of the young—well, female dogs. Doody broke off on that line of thought. Considering, he did not imagine that there had been any interbreeding. In the perfect uniformity of the dogmen there was no trace of the corruption which, even in Rudnuu's day, had been engulfing all humanity, and which seemed to have reached its nauseous fruition in the unwhisperable Kuvurna.

A stir went over the multitude, like the sigh of a single voice. Doody wheeled to stare over the heads of his guards, saw that the lattice gate had swung inward and that the canine high priest was issuing forth, strutting ceremonially and surrounded by his subordinates or accomplices in the priestly racket, as Doody mentally labeled them. The shriveled little dogman advanced to a point where he could command the attention of the whole great crescent of villagers ranged about the southern border of the square; then, flinging his two skinny arms on high, he cried in a loud and penetrating voice:

"Kneel, O Pack! The Man comes!"

With a combined rustle of ragged garments, the hundreds went down as one to their knees. Their eyes were turned upward eagerly to behold their deity; Doody was close enough to the front rank to see the look they held, rapt, worshipful, and it hit him with a queer nostalgia. He remembered a puppy that had been his when he had been a boy on an Ohio farm—only a spotted mongrel tyke, but a blue-ribbon

winner so far as he was concerned.

Out of the court, as the throng still knelt expectant, was borne Kuvurna, a huge, degraded, pulpy hulk, lolling amid padded cushions, upon a swaying and luxurious litter carried aloft by six strong, sweating priests. A broad, fatuous smile covered his countenance as he fluttered his fat white hands languidly toward the worshiping dog folk, after the manner of a benediction. Doody averted his eyes and resolutely said "No" to his stomach.

The six priests eased the litter carefully to the bare, dusty ground, its barbarically ornate magnificence contrasting oddly with the naked square, the squalid rags of the onlookers.

"Arise, O dogs, and hear how justice is to be done! There has come among us a stranger, this person with the queer garments and the black hair, who says that he is a Man. He proclaimed himself as such to some of our hunters; and they, being of the ignorant ones, believed him. But for this they are to be excused on account of their ignorance of the law and the belief.

"This pretender must be tried according to our laws. The members of the Pack Council will now come forward and take their places at the foot of Kuvurna, in readiness to administer the high justice before all the people.

"But first I will remind the Council and the Pack that a Man, it is plain, should know a Man and welcome him as a brother; whereas from this who calls himself a Man our lord Kuvurna has turned away his face."

The fact that at that precise moment Kuvurna was gazing point-blank at Doody with a fixed and foolish grin, the while he blew small bubbles between his teeth, did not seem to disturb the speaker or his wide-eyed and attentive listeners. For some reason, Doody was reminded of the fact that most

primitive idols wear bay windows and vacuous smirks.

From among the assembled dogmen, a round dozen individuals were wriggling and pushing their respective ways forward, and were beginning to form in a close huddle before Kuvurna's royal palanquin. This brow-beaten-looking handful must be the council—the rude beginning of a representative form of government, whose scanty influence was vastly overbalanced by that of the priests with their backing of divine omnipotence. They stood, shuffling their feet uneasily and eying Doody with some hostility—the high priest's statement of Kuvurna's position on the subject evidently carried much weight with them.

This Heliogabalus of the dogmen advanced swiftly to confront the "jury," as Doody's twentieth-century mind insisted on labeling them. His face was twisted, and his wasted old figure—clad only in a garment which resembled nothing more than a soiled towel wrapped around his waist with ends dangling—quivered with a fierce ecstasy compounded equally of religious fervor and burning hatred. His voice shook with the same feverish intensity, as, with one sidelong glance at Doody, he began in the singsong of one reciting from some ancient and holy record:

"Before you sit in righteous judgment, O Council of the Pack, I conjure you to remember the true belief, given to our ancestors of old, that the truth might be theirs and their children's:

"For Man created the dog in His own image; in the image of Man created He him.

"And He said to him, be fruitful, and multiply, and cover the Earth, that in all the Earth may the aspect of My face be

known, through all the ages of all the time to come.

"And for all his days shall the dog serve Man, because He created him, who was as the dust of the earth, and without understanding."

Doody did not hear the priest's voice grind on with the rasping indictment. He was lost in a blaze of sudden revelation that was like apotheosis; the lost piece of the great puzzle had been all at once supplied, and now he knew the answer to all his blind questioning.

His quick mind fitted the jigsaw together, constructed a picture of what had happened thousands of years in the past, when the dogmen had first come into being. Somewhere in the slough of rotting earthman civilization, a fine mind or minds had been born—rising, perhaps for the space of one lifetime only—above the sluggish apathy of degeneration, able to foresee but not to check the oncoming doom.

Perhaps they had been of the scientist rulers of that latter-day state, with its unlimited technical resources at their disposal. But more probably they had been rebels, daring, audacious.

They had seen the extinction of humanity approaching; and for man they had made the last great gesture, the passing of the torch—the bestowal of man's erect form, his wonderful hands, and his immense stored knowledge upon a younger, stronger race.

What choice more logical for man's successor than that of man's age-old, trustworthy companion, the companion who had never forsaken him throughout a long, confused history of fifty thousand years? It had been no magic for the mighty science of that sunset age—to set the dog upon two feet, to alter body and brain and give him speech, to make him—by planned mutations, fine juggling of germ cells—outwardly a human creature. "That in all the Earth may the aspect of My face be known"—when man himself is dead and vanished from the universe.

Only a short time ago Doody had despised himself for belonging to a species which included such a creature as Kuvurna. But now he felt a brief, warm glow of pride—pride that his race, before it fell utterly, had risen high enough to make its last significant act one of exalted un-

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selfishness and dedication to the hope of a future it would never know.

"—consider then the facts, O Council, and decide whether this one is not a liar and impostor worthy only of the meanest death!"

Doody came out of his cosmic reverie in time to hear the close of the high priest's hysterically vindictive speech. He glanced at the withered little dogman almost in pity, and, with a new understanding, over the jam-packed, breathless crowd which swayed back and forth, straining to catch a glimpse of their god and of the far more godlike prisoner.

"Prepare for death, stranger," snarled the priest, advancing to shake a knobby, clenched paw at the object of his hate. "Or perhaps in your ignorance you know no rites of preparation. But die you shall, and soon."

Doody ignored his fury in haughty silence, but his lips half formed the word, "Perhaps." He meant that to be a big perhaps.

His gaze fell once more on the dogmen's witless deity. His lips curled in a mirthless smile which brought shocked surprise into the faces of the watching priests. He was thinking—an activity which, in Doody's type, usually results in action—and his thought ran thus:

Humanity, being of sound mind and clear judgment—if only for a briefly lucid flash on the down path of its existence—had made its last will and testament. And the heir apparent of human civilization was *not* this loathsome last-born of the corrupt old race.

The council had gone into a deliberative huddle. Kuvurna drowsed in stupid torpor, lulled to a mindless serenity by the rhythm of the wide-headed fans with which his attendants kept the air above him moving. The

rest of the assemblage sweltered uncomplainingly beneath the sinking but still blistering sun. A gurgling snore bubbled in him.

The high priest squatted like a deformed spider beside the litter of his man god, scrawling aimlessly in the dust and muttering to himself, but keeping an unwinking, murderous gaze on Doody. The latter scowled back, then affected a carefree, rakish grin, white teeth flashing in his dark face. It must have nettled the old hellhound considerably, for he bounded suddenly to his feet and whipped round to face the jury in high impatience.

"You have debated long enough, O Council of the Pack!" he snapped. "Let us hear your judgment upon the impostor!"

A dogman of more than usually heavy build, with a great red beard that tumbled fanwise over his massive chest, shuffled forward, nodding vigorous and jerky approval of the high priest's words, very like a child who knows he will be slapped if he does not say the right thing. He opened his mouth with diffidence to say the right thing, but Doody broke in.

"Hold on a minute!" he exploded, half enraged, half amused. "Am I to have no chance to speak in my own defense?"

The high priest whirled wrathfully, stood rigid for a moment, his skinny body vibrating like a tuning fork with the intensity of his passion. When he spoke, though, his voice had the quiet deadliness of a bushmaster's hiss. "Speak, then!"

"Very well, I will speak—and I have plenty to say," said Doody softly, and the amusement in his voice was genuine, if bitter. His hand had slipped unnoticed inside his coat and had closed on something there. He raised his voice, made it carry to the massed hundreds of the dogmen, silent and patient under the burning afternoon sun: "How-

ever, I first wish to state that the question of my human or canine nature is of small importance. There is another issue, though; one of great moment.

"What should be on trial, here and now—as man or dog may plainly see if he is not blinded by superstition or fear or sacerdotal lies—is the right of this bloated, depraved, hydrocephalic idiot who calls himself a Man, or any other like him, to rule over *you*, O strong young people!

"Look at him. What is he but a swollen parasite on the community, unable to feed or care for himself? Any of your young warriors, dog or not, is a better man. And I say to you in solemn truth that you are not dogs any longer, for I knew you when you were dogs, and I see that now you have become men!"

A murmur swept over the crowd and was followed by a rising babble of confusion that became a roar. The dog people surged to and fro, each trying to find room to gesture wildly and expound the revolutionary new idea to his neighbor. Some recoiled, shocked by the mad atheism of Doody's claims, horrified by the ruthless demolition of cherished tradition. But many of the younger ones grasped at it eagerly, for it went through the blood like a swift fever, a thrilling fever that urged instant action.

Doody watched, smiling still faintly—triumphantly. He wondered if the world had not lost an excellent firebrand political speaker when he had taken up time exploring. Even now shrill cries were raveling out from the tangle of chaotic hubbub; spears were lifted threateningly above the mob. Even Kuvurna had roused enough to blink incuriously and purse his lips as if in mild disapproval of such behavior.

But the man god's high priest was like one possessed as he saw his world rocking and crumbling

around him, tottering on the verge of the final clash into oblivion. His face, as he fought his way toward Doody through the surging rabble, was terrible, unhuman. His eyes glared madly, his lips were drawn far back in a frightful snarl to display his long canine teeth. Over the surf roar of the crowd rose his piercing scream:

"Seize him! Seize the impostor! He is nothing but a dog—a dog who is not faithful! Kill him—eeeyaaaah!"

The last was a sheer animal shriek of unbearable rage as, with a bronze knife gleaming wickedly in his bony claw, the high priest hurled himself headlong upon Doody. The American wheeled half about to avoid the point and threw a left-handed punch with muscle and weight behind it; the blow collided midway with the dogman's chin, and each of the two went staggering backward—Doody to make a lightning recovery, the high priest to roll over and over and lie sprawling, a limp bundle under the trampling feet of the crowd.

Through the milling mob, armed priests were thrusting toward the blasphemer of their faith, while their brethren ringed close about the divine litter, a dangerous cordon. But for the moment a space was clear about the stranger from time; he shook himself and took a deep breath, and then—

"Of course, I couldn't stay to see the rest of the show," said Doody regretfully. "But before I pulled out for the good old twentieth century, I took just time enough to jerk the pin from my emergency Mills bomb and let it fly with three seconds to go. If the old arm hasn't lost its knack since my baseball days, that hand grenade went squarely

into the bulging paunch of the feeble-minded Kuvurna himself.

"That's the final argument I mentioned. I hope it did its bit to give the heirs of human civilization a fair start on the Earth. The world is going to the dogs, Johnny, and the sooner it arrives, the better. The dogmen were—are—will be—primitive, of course; but some day they will have progressed sufficiently to decipher the ancient records of stored knowledge, which the lost race has left behind. But I think they will really come into their heritage when they learn to call themselves men."

"You were right," I said, without preamble.

"Eh?" Doody's dark eyes opened drowsily; his thoughts might have been far away, down that long road he had journeyed to the dim and far-off time of the dogmen.

"It makes me—think," I confessed, studying the white tablecloth beneath the mellow, indirect lighting; but I fancied that I, too, could peer a little way into the mist of years. "You've followed the human race to its final end—you have yet to find its beginning. Perhaps it is another of the cycles—the beginning and end of the race are the same, and we are only the unknowing heirs of an elder culture—that of the beings men call gods. But somewhere there must be a true beginning—"

"Somewhere," said Doody softly, as if the word was sweet. "Some day. Perhaps I will seek it out—some day."

THE END.



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BOOK REVIEW

BIOGRAPHY OF THE EARTH, by George Gamow, New York: Viking Press, 1941, 242 pp., \$3.00

This book is just what the title implies: a popular account of the Earth's birth, history and probable death. Professor Gamow sets forth the near-collision theory of the origin of the planets—a passing star pulled a filament out of the Sun, which filament broke up into drops which condensed, et cetera. He offers some ingenious answers to the usual objections to this theory: such as, how did the originally highly eccentric orbits of these planets become nearly circular?

He asserts that the moons of the other planets were drawn out from these planets in an analogous manner, when their orbits were so eccentric that they passed close to the Sun at perihelion. As regards Earth's moon, he thinks it was extracted at a later stage when the gaseous planet had liquefied.

He tells about the mechanics of mountain-formation, and gives a lot of information on paleogeography; he sets forth the Wegener continental drift theory—Gamow thinks the drift stopped long ago when the basaltic subsurface layer solidified. He gives an extensive explanation, with diagrams, of the relationship between eccentricity of the Earth's orbit, rotation of its axis, mountain-chain formation,

and the occurrence of glacial periods.

The book is written in a humorous, bouncing style and is well garnished with admirably informative pictures and diagrams. It is recommended with the reservation that the reader must not take all of Professor Gamow's dogmatic statements concerning things that happened billions of years ago or will happen billions of years in the future, too seriously. The book is full of statements like "—we must accept it as definitely proved that one of the outer planets, the outer neighbor of Mars, was smashed—" The author's reasoning is tight and apparently logical, but it is only fair to warn the reader that the facts on which Professor Gamow bases his cocksure assertions have been used by other scientists of good standing to support quite different hypotheses. There are also a number of inaccuracies in the paleontological chapter; the author in his preface disclaims any special authority in this field, but it is unfortunate that he did not have this section checked by a competent critic. With these qualifications it is believed that the book would be of both interest and value to the science-fiction fan, or at least to the fan who has outgrown the habit of believing that a thing is necessarily so if it is stated in print.

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